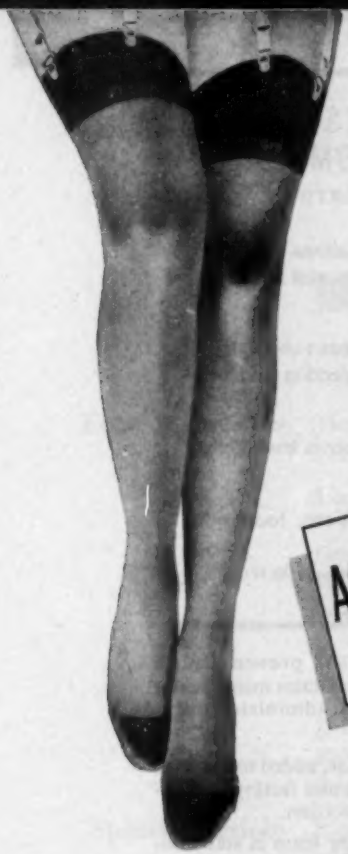
THE JOURNAL OF MEDICAL PRACTICE

Medical TIMES

No Overhose Necessary!



with full-footed

ACE® Elastic Hosiery

here's why . . .

Differing from the usual elastic stocking, ACE® Elastic Hosiery is knit with a full nylon toe . . . is form-fitted . . . is as sheer in appearance as service-weight nylons . . . and is offered in an inconspicuous neutral shade of beige that blends with the smartest apparel. Elimination of overhose does away with the unattractive bulkiness, uncomfortable weight, and unsightly wrinkles which have made patients rebel against supportive stockings.

WOMEN WILL WEAR
ACE Elastic Hosiery
WITHOUT EMBARRASSMENT
AND IN COMFORT!

suspension support

The full foot in ACE Elastic Hosiery gives positive terminal anchorage immediately behind the toes. When the hose is drawn on the leg under tension and fastened with garters, it provides a radically new type, sheath-like suspension support to venous structures of the leg.

fitted by "Calcufit"

ACE Elastic Hosiery is quickly and easily fitted with exclusive B-D "Calcufit" Charts supplied free to physicians.

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Please send me FREE Professional Literature and Calcufit charts for ACE ELASTIC HOSIERY.

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17-D

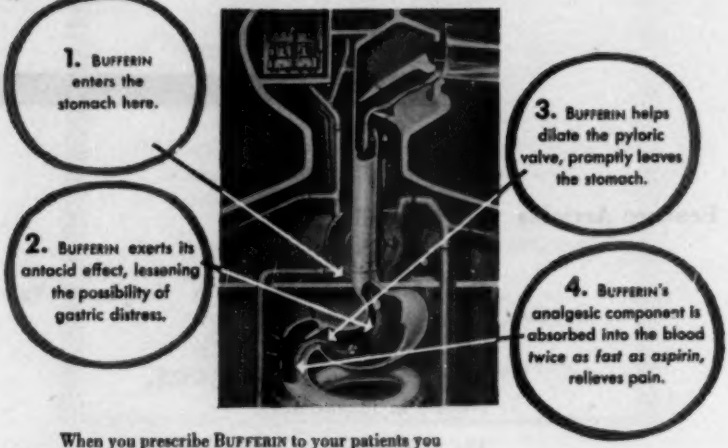
CONTENTS

Medical Times is published monthly by Romaine Pierson Publishers, Inc., with publication offices at 34 North Crystal Street, East Stroudsburg, Pa. Executive, advertising and editorial offices at 676 Northern Boulevard, Great Neck, L. I., N. Y. Acceptance under section 34.64, P.L. and R., authorized February 23, 1950 at East Stroudsburg, Pa.

Give faster pain relief with BUFFERIN

ACTS TWICE AS FAST AS ASPIRIN

WITHOUT GASTRIC DISTRESS!



When you prescribe BUFFERIN to your patients you assure *faster relief of pain.* Clinical studies[1] show that within ten minutes after BUFFERIN is ingested, blood salicylate levels are as great as those attained by aspirin in twice this time. That is why BUFFERIN *acts twice as fast as aspirin.*

BUFFERIN has *greater gastric tolerance.* BUFFERIN's antacid ingredients provide protection against the gastric distress so often seen with aspirin.[1] BUFFERIN, therefore, is especially suited for use when prolonged use of salicylates is indicated.

1. Effect of Buffering Agents on Absorption of Acetylsalicylic Acid J. Am. Pharm. A., Sc. Ed. 39:21, Jan. 1950.

In vials of 12 and 36 and bottles of 100. Scored for divided dosage. Each BUFFERIN tablet contains 5 grains of acetylsalicylic acid with optimal proportions of magnesium carbonate and aluminum glycinate.

BUFFERIN
is a trade-mark of the Bristol-Myers Company

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CONTENTS

ugar-coated for dependable diuresis

Sugar coating is one reason for the superiority of Tablets MERCUHYDRIN with Ascorbic Acid.

Maximum absorption of mercury occurs in the stomach and duodenum—too high for enteric-coated tablets. But poorly tolerated oral mercurials *must be* enteric-coated. Only well-tolerated Tablets MERCUHYDRIN with Ascorbic Acid can be sugar-coated . . . give consistently greater diuresis with less mercury.

For dependable diuresis and minimal side effects prescribe

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MERCUHYDRIN®

with ascorbic acid

The simplest method of outpatient maintenance

dosage: One or two tablets daily, morning or evening, preferably after meals.

available: Bottles of 100 simple sugar-coated tablets each containing meralluride 60 mg. (equivalent to 19.5 mg. of mercury) and ascorbic acid 100 mg.

To secure the greatest efficacy and all the advantages of Tablets MERCUHYDRIN with Ascorbic Acid, prescribe a three-week initial supply . . . 25 to 30 tablets.

M-15

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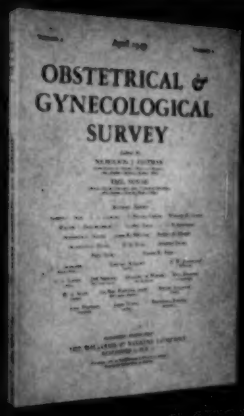
MEDICAL BOOK NEWS



"... these statistics are the best that have been reported. In fact, they couldn't be any better."

Editor: Obstetrical & Gynecological Survey
Vol. 4, No. 2: April, 1949: page 190

...statistics refer... are those reported by ... Smith in her article, "Diethyl... trol in the Prevention and Treatment ... of Complications of Pregnancy", in the Novem... ber, 1948, issue of *The American Journal of Obstet... rics and Gynecology*. This study of 632 pregnancies showed that, "under stilbestrol treatment the habitual aborter enjoys the same outlook for a living baby as does the average gravida. This is what I mean by saying that these statistics are the best that have been reported".[1]

This report affords additional evidence that the treatment of threatened and habitual abortions with **des** — Grant Process diethylstilbestrol — as pioneered by Karl John Karnaky[2], is the most effective treatment available.

The work of Silbernagel and Burt[3], and of Rosenblum and Melinkoff[4] showed that with diethylstilbestrol *68.4% more* cases were carried to term than with progesterone. In fact, it is now felt that the administration of progesterone may actually hasten abortion[5].

des is the only diethylstilbestrol prepared by the unique Grant Process of triple crystallization. Highly micronized **des** tablets are dissolved within a few seconds and are uniformly absorbed into the blood stream. **des** is specifically designed for the treatment of threatened abortion, habitual abortion and premature labor. The... living results obtained with **des** are the best that have been reported. "In fact, they couldn't possibly be any better."

des IS BEST

REFERENCES
1. Editor: Obs. and Gyn. Survey, 56, 821-834, Nov. 1948. 2. Karnaky, K. J. Estrogenic Tolerance in Pregnant Women. Amer. Jr. Obs. and Gyn. 53, 313-316, 1947. 3. Silbernagel, W. M. and Burt, O. P. Ohio State Med. Jr. 39, 430 May 1943. 4. Rosenblum and Melinkoff. Preservation of the Threatened Pregnancy with Particular Reference to the Use of Diethylstilbestrol. West. Jr. Surg. Obs. and Gyn. ...91-503, Nov. 1947. 5. Hamblen, E. C. Endocrinology of Woman. Springfield, Ill. Charles E. Thomas, 1948, p. 476.

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Medical TIMES

THE JOURNAL OF GENERAL PRACTICE

Incorporating the Long Island Medical Journal and Western Medical Times

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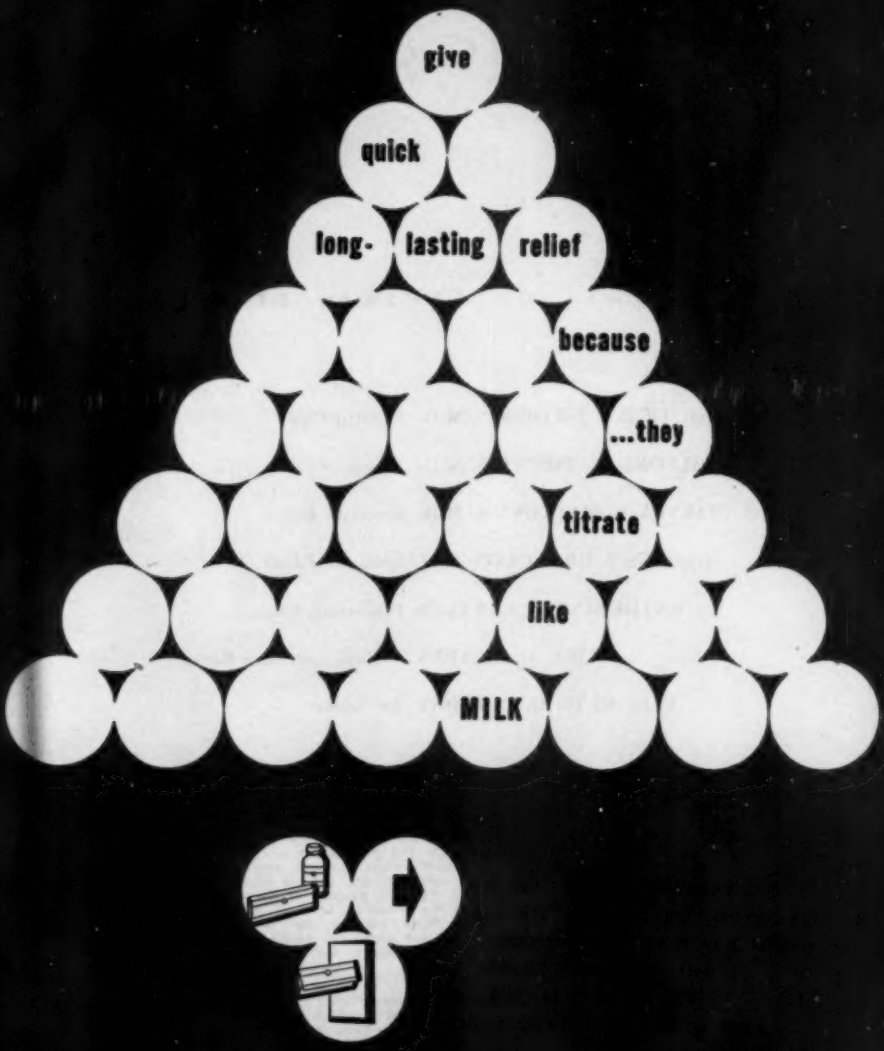
give
quick
long-
lasting
relief
because
...they
titrate
like
MILK

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GRATIFYING IMPROVEMENT IN ACNE, KELOIDS, WITH NEWLY ISOLATED LIVER FRACTION

K·U

KUTAPRESSIN

TRADEMARK

Liver Factor "S"
in sterile, aqueous solution for intramuscular or subcutaneous injection

IN ACNE
reduces papules, pustules, comedones[1,2,3,4] • modifies unsightly scarred areas[1]

IN KELOIDS
reduces size of keloids[4] • inhibits regrowth after surgical removal[5]

KUTAPRESSIN* restores normal skin tone in acne—by constricting capillaries, decreasing capillary volume, and increasing the rate of blood flow through affected tissues.[1,4] This eliminates the passive hyperemia arising from local stasis of blood and tissue fluids, and restores the skin's resistance to secondary infection.

In keloids, constriction of capillaries and reduction of their permeability prevents flow of blood serum into subcutaneous tissues, thus decreasing the distention of the skin and the accompanying inflammation.[4,6] Administration of **KUTAPRESSIN** before, during, and after surgical removal of keloids decreases loss of blood serum into the site of scar formation and inhibits regrowth.[5]

REFERENCES: 1. Marshall, W.: J. M. A. Alabama 13: 255 (1941). 2. Lichtenstein, M. R., and Stillians, A. W.: Arch. Dermat. & Syph. 45: 959 (1942). 3. Stillians, A. W.: Mississippi Valley M. J. 64: 135 (1942). 4. Marshall, W., and Schadeberg, W.: Wisconsin M. J. 49: 369 (1950). 5. Marshall, W.: Paper read before Midwestern Section of the American Federation for Clinical Research, November 2, 1950.

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Available in 10-cc. multiple-dose vials through your usual source of supply.

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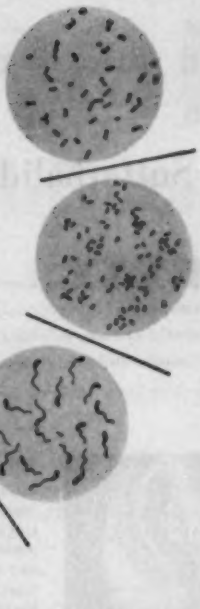
(brand of phthalylsulfacetimide)

eliminate intestinal organisms



SIMPLY
AND
SAFELY

Unique among nonabsorbable sulfonamides, THALAMYD is actually absorbed into the bowel wall in high concentration but only slightly absorbed into the blood stream.

Simple, safe therapy whenever the intestinal tract must be sterilized, THALAMYD has a broad field of usefulness: *prophylactically when preparing the gut for surgery; for bacillary dysentery and other acute enteritis; and to control secondary invaders in ulcerative colitis.*

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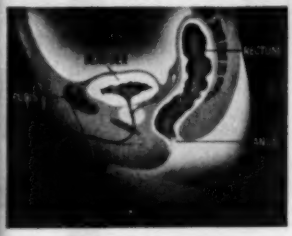
THALAMYD

SCHERING

NEW STRATEGY IN COMMON URINARY TRACT INFECTIONS

Pain quickly relieved, infection controlled by a combination of Sulfathalidine® and Hexylresorcinol

THALEXYL® a new combination of two widely accepted drugs, has proved exceptionally effective for symptomatic and bacterial control of urinary infections. Treatment is based on the bacteriostatic, antiseptic and analgesic actions of the two components.



THE PERSISTENCE OF CURE

obtained with SULFATHALIDINE phthalylsulfathiazole is ascribed primarily to two factors: elimination of the source of infection from the bowel may protect the tissues of the urinary tract against recurrent infection by affording opportunity to develop natural resistance. The bacteriostatic effect of the drug on organisms of the gastrointestinal tract may also block the escape of these organisms into the urinary tract.

CLEAR, SPARKLING URINE

is usually obtained within one week after the beginning of THALEXYL therapy.

Prompt relief. When THALEXYL capsules are administered in acute and chronic urinary tract infections, pain and discomfort are quickly relieved, and the urine usually becomes clear and sparkling within one week. Results are due to double antibacterial action of SULFATHALIDINE in the lower bowel and hexylresorcinol in the urinary tract, where the latter also exerts a pronounced analgesic effect, bringing relief from vesical irritability, burning, frequency, and tenesmus. Medication should be continued for three weeks, regardless of symptomatic and bacteriologic improvement, to minimize the possibility of recurrence. Sharp & Dohme, Philadelphia 1, Pa.

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Kindly send me without obligation literature describing Thalexyl capsules and samples for clinical trial.

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Thalexyl Formula:	
Sulfathalidine phthalylsulfathiazole	0.5 Gm.
Hexylresorcinol	0.1 Gm.

Supplied in bottles of 100 capsules, Thalexyl capsules are easily swallowed because of their distinctive elongated shape.

in intractable peptic ulcer
when other therapy fails

KUTROL®

peptic ulcer inhibitant

Controlled studies with intractable peptic ulcer patients show these advantages:

beneficial response in up to 70 to 80 per cent of patients

Noteworthy results in patients with ulcer of long duration and where conventional methods have failed.[1]

remission of ulcer often in a matter of weeks

Rapid relief of symptoms and disappearance of ulcer crater. The beneficial action of KUTROL is believed to be due to fibroblastic proliferation, new formation of blood vessels and epithelization of the mucosa.

simplified regimen

Normal three-meals-a-day schedule as soon as the condition of the patient warrants. Unlike older methods of treatment KUTROL therapy does not require a continuous restricted dietary regimen for an indefinite period of time.

well-tolerated

No toxicity, intolerance or idiosyncrasy noted.

KUTROL (uroenterone, Parke-Davis), also known as uroanthelone, contains a non-estrogenic factor or factors which alleviates the symptoms and stimulates healing of crateriform peptic ulcers.[2,3] The usual dosage is two KUTROL Kapseals® four times daily, one-half hour before mealtimes and at bedtime. KUTROL is not intended for use in cases of surgical complications, including pyloric obstruction, penetrating or perforating ulcer, or in those cases of gastric or other ulcer in which a possibility of malignancy exists.

KUTROL Kapseals, 75 mg., are supplied in bottles of 100.

References:

1. Page, R. C., and Heffner, R. R.: Oral Treatment of Chronic Duodenal and Jejunal Ulcers with an Extract of Pregnant Mares' Urine, Gastroenterology *11*:842, 1948.
2. Sandweiss, D. J.: The Present-Day Treatment of Duodenal Ulcer, Pennsylvania M. J. *52*:1348, 1949.
3. Sandweiss, D. J.; Saltzstein, H. C.; Scheinberg, S. R., and Parks, A.: Hormone Studies in Peptic Ulcer, J.A.M.A. *144*:1498, 1950.

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ethyl acetate

new, safer, oral anticoagulant

Throughout the exhaustive studies on TROMEXAN, involving many hundreds of cases, this new anticoagulant has proved singularly free from the dangers of hemorrhagic complication. Other advantageous clinical features of TROMEXAN are:

1 ***more rapid therapeutic response***
(therapeutic prothrombin level in 18-24 hours);

2 ***smooth, even maintenance of prothrombin level***
within therapeutic limits;

3 ***more rapid return to normal***
(24-48 hours) after cessation of administration.

In medical and surgical practice . . . as a prophylactic as well as a therapeutic agent . . . TROMEXAN extends the scope of anticoagulant treatment by reducing its hazards.

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TROMEXAN (brand of ethyl biscoumacetate): available as uncoated scored tablets, 300 mg., bottles of 50 and 250.

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Problem Patient

bald, bearish, and bloated . . .

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Between times, Mr. Bluechip huffs and puffs at his board of directors, and grumbles of gas on the stomach.

In other words, old B. B. is just like a million other business bigwigs who know all about capital assets and obsolescence, except as applied to the epigastrium. They don't feel sick, but they don't feel well — and they aren't going to feel any better as long as they cherish their foibles and follies and mock the mandate of mellowing years to mend their ways at the table.

There's no one way to handle the Billingsworth Bluechips and their willful adherence to habit. But it's said that "the commonest cause" of digestive distress in patients over forty is low grade biliary dysfunction. And such being the case, DEPANCOL will often serve an important two-fold purpose: (1) To afford prompt relief from the classic complaints — flatulence, bloating, dyspepsia, etc. — thus encouraging the patient's early cooperation in a long-range corrective program; and (2) To flush and activate the sluggish biliary system, thus encouraging restoration of normal function by physiologic means.

Depancol®

Dehydrocholic Acid	½ gr.
Bile Salts	1½ gr.
Pancreatic substance equivalent to Pancreatin U.S.P.	4½ gr.

in an enteric coated tablet

SUPPLY Bottles of 50, 500, and 5,000 enteric coated tablets, available at your druggist.

DOSAGE Average: 1 or 2 tablets 3 times daily, with or after meals.

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NEW high dosage liquid concentrate for greater convenience and flexibility in therapy

CRYSTALLINE

Terramycin

HYDROCHLORIDE

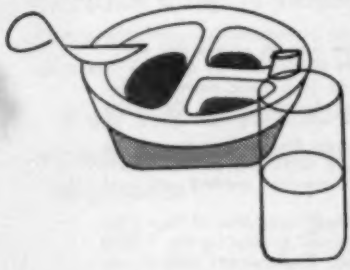
ORAL DROPS

the only broad-spectrum antibiotic available in drop-dose potency

provides: 200 mg. of Crystalline Terramycin Hydrochloride per cc.; approximately 50 mg. in each 9 drops.

plus appeal of attractive cherry color and pleasing cherry-mint flavor.

readily miscible with most foods, milk and fruit juices



affords ease and simplicity of administration and permits a further simplification of dosage schedules in mild and severe infections, and with patients of all age and weight levels.

Available at prescription pharmacies in 10 cc. bottles with specially calibrated dropper.

Antibiotic Division **Pfizer** CHAS. PFIZER & CO., INC., *Brooklyn 6, N. Y.*

1941 • A DECADE OF PROGRESS IN ANTIBIOTIC THERAPY • 1951

MODERN MEDICINALS

Physicians will find that these brief resumes of essential information relative to the newer products are so prepared that they may be removed and pasted on standard 3 x 5" file cards, and filed for ready reference.

Vascutum

4-51

MANUFACTURER: Schenley Laboratories, Inc., New York 1, New York.

INDICATIONS: Tends to re-establish normal fat and cholesterol metabolism thus serving as a therapeutic and prophylactic aid in interrelated degenerative diseases affecting middle aged and elderly patients including liver degeneration, arteriosclerosis and related cardiovascular involvements.

ACTIVE CONSTITUENTS: Tablets containing lipotropic agents combined with capillary protective features. Choline, inositol, methionine, pyridoxine, rutin and ascorbic acid.

DOSAGE: A total of six tablets daily, in divided doses or increased amounts depending on the severity of the case.

HOW SUPPLIED: Bottles of 100 tablets.

Drilitol

4-51

MANUFACTURER: Smith, Kline and French Laboratories, 1530 Spring Garden St., Phila. 1, Pa.

INDICATIONS: In the prophylaxis and treatment of a wide range of common upper respiratory tract disorders, including the common cold and its sequelae, sinusitis, nasopharyngitis, allergic rhinitis, etc.

ACTIVE CONSTITUENTS: A stable, isotonic, aqueous solution containing gramicidin, 0.005 percent; polymyxin B sulfate, 500 units/cc.; thenylpyramine hydrochloride, 0.2 percent; 'Paredrine' Hydrobromide (hydroxyamphetamine hydrobromide), 1 percent. Preserved with thimerosal, 1:100,000.

DOSAGE: Adults: Three or four drops (1 dropperful) in each nostril, 4 or 5 times a day, not oftener than once every 2 hours. Children: ½ dropperful in each nostril, 4 or 5 times daily.

HOW SUPPLIED: In ½ fl. oz. bottles, with special "dosage-adjusted" dropper that delivers the recommended adult dose.

House Dust Extract

4-51

MANUFACTURER: Abbott Laboratories, North Chicago, Illinois.

INDICATIONS: To protect the allergic patient from the maximum amount of allergen which he may encounter in his usual pursuits.

ACTIVE CONSTITUENTS: A bulk set made of graduated dilutions in isotonic dextrose solution of Abbott's refined and concentrated house dust extract. Source of dust: mattresses and other household furnishings.

DOSAGE: Treatment should be individualistic. The first dose must be very weak and the succeeding ones cautiously increased in strength, but only when the patient reacts favorably. This new extract is much stronger than Abbott's previous product and must be administered with extreme care.

HOW SUPPLIED: In a serial dilution treatment set (already diluted) consisting of four 5-cc. vials: No. 1 vial containing the 1:50,000 dilution; No. 2 vial containing the 1:5000 dilution, and two No. 3 vials containing the 1:500 dilution. Replacement vials of any of the three dilutions may be ordered separately.

—Continued on page 44a

1½ & 4 Oz. Bottles for Your Rx Convenience

Octofen

A POWERFUL FUNGICIDE

Not a "Frightening Concentration!"

Anti-fungal agents which are only fungistatic must be used in such frightening concentrations for results that often patients are more frightened than the fungi! Too, overpowering concentrations may lead to greater incidence of irritation, more frequent relapse or reinfection.

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If you have not yet tried OCTOFEN, you have yet to give athlete's foot the "full treatment!"

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Octofen

- Kills fungi on contact.
- Has cleared cases in as short a time as 1 week.
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- No irritants, heavy metals, tars, oils, phenols, alkalies.
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Please send me free a clinical sample package of OCTOFEN—sufficient to test its efficacy—and descriptive literature.

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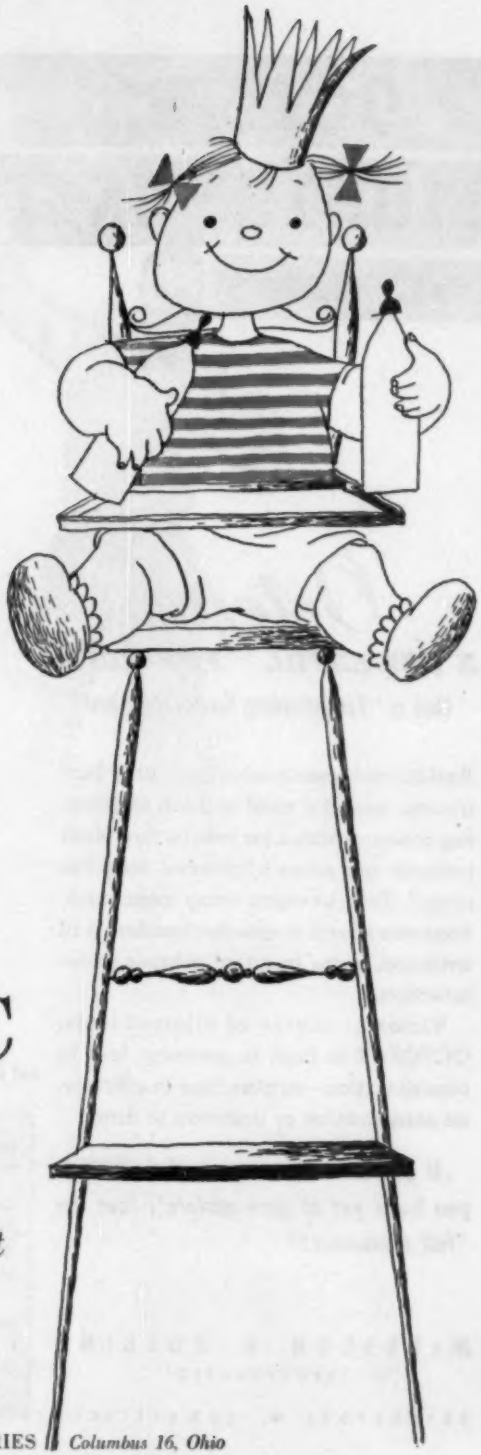

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is so similar to human breast milk that there is no closer equivalent

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- *stable*
- *effective*
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- *practically painless*

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for intramuscular use

Meets an important need for quinidine therapy. They are especially indicated in the management of auricular fibrillation, paroxysmal tachycardia and disorders of heart rhythm during surgery and anesthesia.

"There were no systemic toxic reactions or symptoms of cinchonism with the doses that were used. (0.6 Gm.)"

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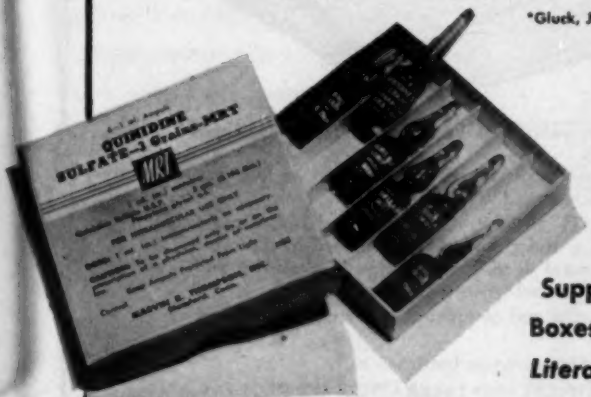
*"Quinidine sulfate in propylene glycol by intramuscular injection meets an important need in quinidine therapy. It is especially applicable in certain kinds of cases: those in which the oral administration gives rise to diarrhea or other gastrointestinal symptoms; patients in coma; for the prevention and treatment of disorders of heart rhythm during surgery and anesthesia."**

*Gluck, J.L., Gold, H., et al J.A.M.A. 145 (March 3) 1951



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for intramuscular use

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No activity pause at her menopause

Your patient may continue her normal activities even to the extent of keeping pace with her daughter. She will be greatly encouraged, especially when the effectiveness of therapy measures up to expectations. In estrogen therapy an especially useful product . . . . . is:

BENZESTROL

2,4 (p-hydroxyphenyl) –3– ethyl hexane

"Liver function tests, blood studies and urine examinations showed no toxic effects of the synthetic substance BENZESTROL"*

Supplied:

Oral: *Benzestrol* **Tablets**
0.5 Mg., 1.0 Mg., 100's & 1000's, 2 Mg., 5 Mg. — 50's — 100's — 1000's.

***Benzestrol* Elixir:**
15 Mg. per fluid ounce, Pint Bottles.

Intramuscular: *Benzestrol* **Solution in Oil; Aqueous Suspension with 5% Benzyl Alcohol**
5.0 Mg. per cc. 10cc Vials.

Local: *Benzestrol* **Vaginal Tablets**
0.5 Mg. 100's.

AVERAGE DOSE: Menopause — 2 to 3 Mg. daily orally or ½ to 1cc parenterally every 5 days.

Professional Samples and Literature upon Request

NOTE:
Frequently, medication other than estrogens may be required during the menopause. Pleasant tasting Elixir Benzestrol is compatible with many substances.

*Reference: MacBryde, C. M., et. al., *A New Synthetic Estrogen*, J.A.M.A., 123: 361-364 (Oct.) 43.

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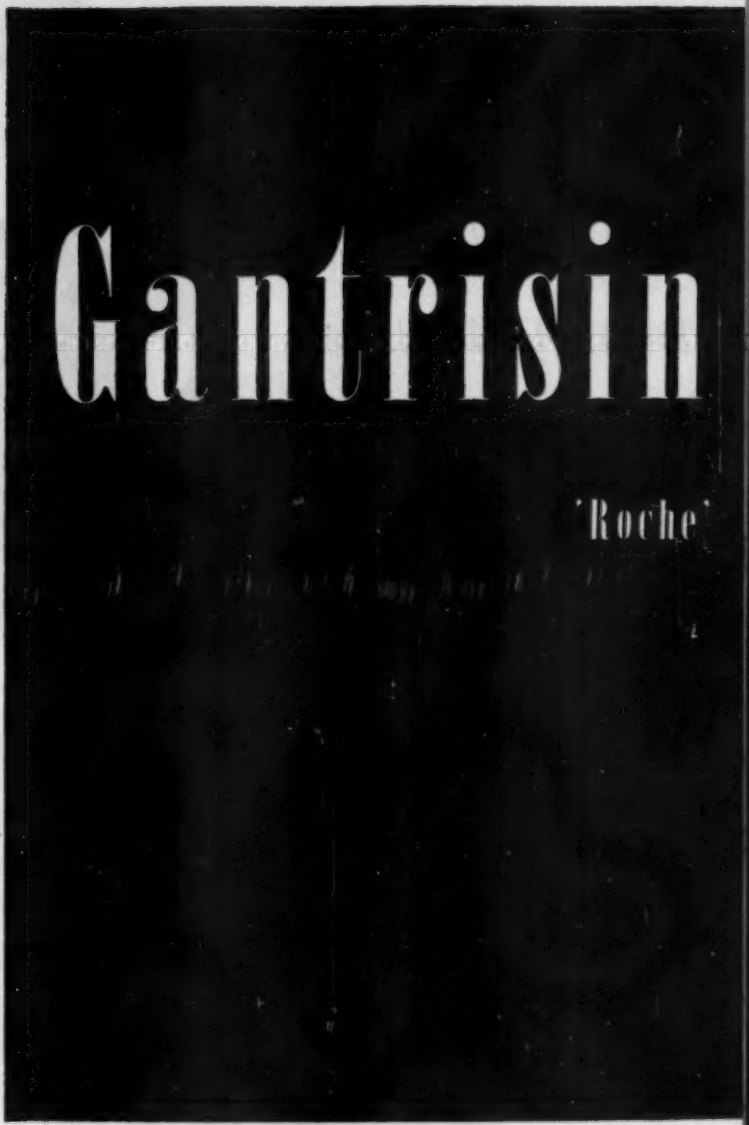

Gantrisin
'Roche'

antibacterial action plus...

■ **greater solubility**

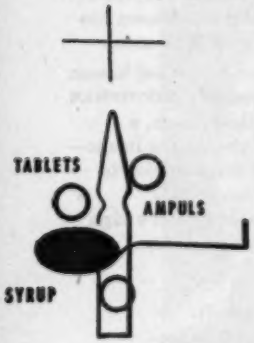
Gantrisin is a sulfonamide so soluble that there is no danger of renal blocking and no need for alkalinization.

■ **higher blood level**

Gantrisin not only produces a higher blood level but also provides a wider antibacterial spectrum.

■ **economy**

Gantrisin is far more economical than antibiotics and triple sulfonamides.



■ **less sensitization**

Gantrisin is a single drug—not a mixture of several sulfonamides—so that there is less likelihood of sensitization.

GANTRISIN®—brand of sulfisoxazole
(3,4-dimethyl-5-sulfanilamido-isoxazole)

HOFFMANN-LA ROCHE INC.

Roche Park • Nutley 10 • New Jersey

Better Toleration + Diagnostic Dependability

NORMAL PATHOLOGICAL

In cholecystography, the clinical effectiveness of **MONOPHEN** and its greater freedom from such unpleasant side reactions as cramps, diarrhea, dysuria and nausea has been amply demonstrated in a series of over 3000 cases.

MONOPHEN has been exhaustively tested on *normal* human beings in order to definitely establish controls. **MONOPHEN** "normals" are *consistently* sharp and clear. Thus, a deviation from normal, as observed by the "sharp image—poor image" contrast, should cause the diagnostician to suspect the existence of a pathological state. This diagnostic reliability is aptly demonstrated in that a high percentage of those cases termed pathological were later confirmed surgically.

Write for samples

• **MONOPHEN** is 2-(4-hydroxy-3, 5-diiodo-benzyl)-cyclohexane carboxylic acid, containing 52.2% iodine in stable combination.

• **SUPPLIED IN BULK:** Capsules (0.5 gram each) are cellophane-sealed in units of 2's and boxed in quantities of 50, 100, 250, 500 and 1000, with a requisite number of dispensing envelopes imprinted with directions for use.

MONOPHEN

THE MODERN CHOLECYSTOPAQUE

NATIONAL SYNTHETICS, INC. • 270 LAFAYETTE ST., N.Y. 12

"Dependability Through the Years"

For relief of visceral spasm

In disturbances involving smooth muscle spasm, optimal therapy controls both the psychic and somatic factors involved. Trasentine-Phenobarbital, with components having both peripheral and central action, obtains therapeutic effect in moderate dosage, without the side effects of belladonna on the heart, pupil or salivary glands.

Trasentine-Phenobarbital has many indications in gastroenterology, gynecology, urology, and also in radiology, where it is effective in controlling the symptoms of radiation sickness.

Issued: *Trasentine - Phenobarbital Tablets* (yellow) containing 50 mg. Trasentine® (adiphenine) hydrochloride with 20 mg. phenobarbital, in bottles of 100 and 500.

Trasentine Tablets (white) without phenobarbital, containing 75 mg., in bottles of 100 and 500. 2/1653M

Trasentine-Phenobarbital

potent spasmolytic **mild sedative**

Ciba PHARMACEUTICAL PRODUCTS, INC., SUMMIT, N. J.

rèlief!

the measure of a good hemorrhoidal suppository . . . . . .

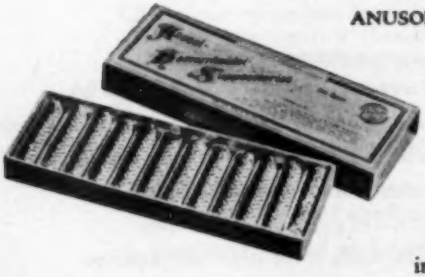
ANUSOL* *HEMORRHOIDAL SUPPOSITORIES*

'WARNER'

Preferred and Prescribed by Physicians for more than half a Century.

ANUSOL* HEMORRHOIDAL SUPPOSITORIES promptly and effectively relieve the pain and discomfort of the common anorectal disorders.

ANUSOL* HEMORRHOIDAL SUPPOSITORIES do not contain narcotic or analgesic drugs which may mask more serious anorectal disorders.



For best results use **ANUSOL*** in the morning and at bedtime and immediately following each evacuation.

ANUSOL* **HEMORRHOIDAL SUPPOSITORIES,** individually foil wrapped, are available in boxes of 6, 12 and 48.

'WARNER'

WILLIAM R. WARNER

Division of Warner-Hudnut, Inc.

*T. M. Reg. U. S. Pat. Off.

NEW YORK LOS ANGELES ST. LOUIS

regulate cardiac output...more precisely

Digitaline Nativelle provides *positive maintenance*—positive because it is completely absorbed and uniformly dissipated. It affords full digitalis effect between doses. Since the non-absorbable glycosides, so frequently causing gastric distress, are eliminated, untoward side reactions are rare. Because of this efficiency Digitaline Nativelle is a cardiotonic of choice of leading cardiologists the world over. For the comfort and protection of your patients—for your own assurance—specify Digitaline Nativelle in full when you prescribe.

digitaline nativelle

Chief active principle of digitalis purpurea (digitoxin)
(not an adventitious mixture of glycosides)

For dosage instructions consult Physicians' Desk Reference

Send for brochure:
"Modern Digitalis Therapy"
Varick Pharmacal Company, Inc.
(Division of E. Fougera & Co. Inc.)
75 Varick St., New York

"time heals almost all wounds"

But consider *resistant* wounds or lesions which linger despite the usually adequate measures: **indolent ulcers**
malodorous fistulas
infected burns
stubborn dermatoses

Chloresium therapy

gives time and the physician a helpful adjunct in these cases.

Clinical investigations have demonstrated the beneficial effects of CHLORESIUM (brand of water-soluble chlorophyll derivatives) in facilitating normal tissue repair:

1. **wounds quickly acquire a healthy granulating appearance**
2. **foul-smelling wounds are consistently and rapidly deodorized**
3. **in burns and dermatoses, helps bring about normal tissue repair and epethelization**
4. **non-toxic, bland and soothing**

bibliography

Moss, Henry N.; Morrow, Burton A.; Long, Richard C.; Ravdin, I. S.: Effectiveness of Chloresium in Wound Healing and Deodorant Effects. J.A.M.A., *140*:1336 (Aug. 27) 1949.
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CHLORESIUM Ointment in 1 oz. and 4 oz. tubes;
CHLORESIUM Solution (plain) in 2 oz. and 8 oz. bottles

RYSTAN COMPANY, INC • MT. VERNON, NEW YORK

to make the **APPETITE** *fit* **THE DIET**

It is well known that the craving for food which besets many obese people cannot easily be controlled by the will alone. For them, adherence to a reducing diet often imposes a nervous strain, with consequent tension and irritability; and if they succumb to their urge to eat more, they have a sense of failure.

But appetite can now be modified by oral administration of 'Methedrine'. Then avoidance of over-eating becomes practically effortless, and the patient feels fitter and cheerful, as well as satisfied . . . with his meals and with his achievement.

Trials have shown that 'Methedrine' is a reliable anorexiant, and that it is effective in low dosage

Literature describing dosage and recommended regimen will be sent on request.

REFERENCES: Ray, H. M.: Am. J. Digest. Dis., 14:153, 1947.
Shapiro, S.: ibid, 14:261, 1947.

'METHEDRINE'®

brand

Methamphetamine Hydrochloride (d-Desoxyephedrine Hydrochloride)

Compressed products of 5 mg.—Scored to facilitate division.

BURROUGHS WELLCOME & CO. (U.S.A.) INC. TUCKAHOE 7, NEW YORK

Vitamin deficiencies can rarely be diagnosed from the textbook[1]...

... or from their classical symptomatology. For example, corneal invasions may arise from a riboflavin deficiency, or a deficiency of vitamin A may be indicated. Patients suspected of having two or three deficiencies show improvement only to a certain point when given the two or three specific vitamins.[1] In such instances, multiple vitamin therapy is indicated.

THERAGRAN—Therapeutic Formula Vitamin Capsules Squibb—supplies clinically proved, truly therapeutic dosages of all the individual vitamins indicated in mixed vitamin therapy.

1. Spies, T. D., and Butt, H. R., in Duncan, G. G.: Diseases of Metabolism, ed. 2, Philadelphia, W. B. Saunders Co., 1947, pp. 485-496.

Each Theragran Capsule contains:

Vitamin A	25,000 U.S.P. units
Vitamin D	1,000 U.S.P. units
Thiamine HCl	10 mg.
Riboflavin	5 mg.
Niacinamide	150 mg.
Ascorbic Acid	150 mg.

Bottles of 30, 100 and 1,000.

Whether lesions be acute or chronic... mild or severe—for truly therapeutic dosages

specify

THERAGRAN

THERAPEUTIC FORMULA VITAMIN CAPSULES SQUIBB

SQUIBB

A single vitamin deficiency may veil many...

Syndromes produced by lack of a single vitamin rarely exist in medicine. Spies and Butt[1] insist that even "where there are clear evidences of one deficiency there must certainly be some signs, perhaps veiled, of other specific deficiency states."

Whether lesions are acute or chronic... mild or severe...

specify

THERAGRAN

THERAPEUTIC FORMULA VITAMIN CAPSULES SQUIBB

THERAGRAN supplies truly therapeutic dosages of all vitamins indicated in mixed vitamin therapy.

THERAGRAN gives you these essential vitamins in the clinically proved therapeutic "practical formula" recommended by Jolliffe.[2] (Thiamine content raised to 10 mg.)

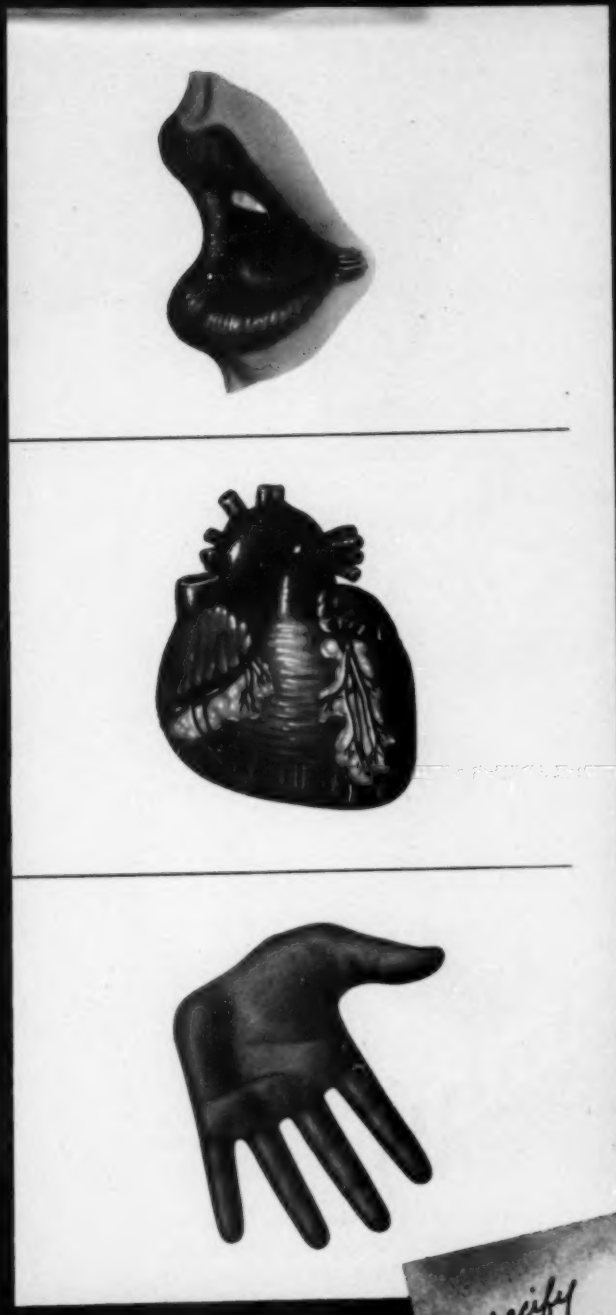
Each Theragran Capsule contains:

Vitamin A	25,000 U.S.P. units
Vitamin D	1,000 U.S.P. units
Thiamine HCl	10 mg.
Riboflavin	5 mg.
Niacinamide	150 mg.
Ascorbic Acid	150 mg.

Bottles of 30, 100 and 1,000.

1. Spies, T. D., and Butt, H. R., in Duncan, G. G.: Diseases of Metabolism, ed. 2, Philadelphia, W. B. Saunders Co., 1947, pp. 485-496.

2. Jolliffe, N., in Jolliffe, Tisdale & Cannon: Clinical Nutrition, New York, Hoeber, 1950, pp. 634, 23-24.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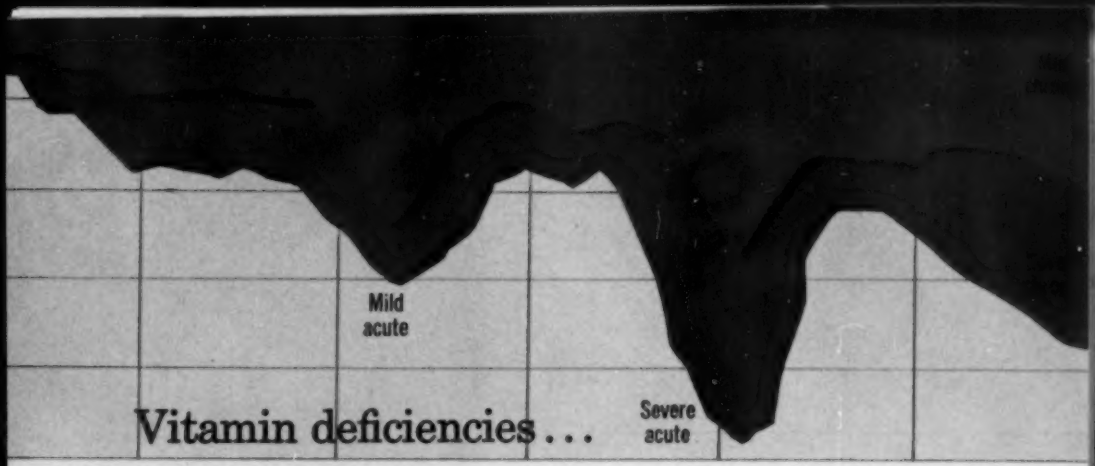
SQUIBB



Vitamin deficiencies . . .

acute . . . chronic . . . mild . . . severe

yield to the truly therapeutic dosages of

THERAGRAN

THERAPEUTIC FORMULA VITAMIN CAPSULES SQUIBB

Theragran Sample — ***One week's treatment for a patient.*** You may obtain this sample of seven Theragran Capsules from your Squibb Professional Service Representative, or write to E. R. Squibb & Sons, 745 Fifth Avenue, New York 22, New York.

Each Theragran Capsule contains:

Vitamin A	25,000 U.S.P. units
Vitamin D	1,000 U.S.P. units
Thiamine HCl	10 mg.
Riboflavin	5 mg.
Niacinamide	150 mg.
Ascorbic Acid	150 mg.

for truly therapeutic dosages . . .

specify **THERAGRAN**

THERAPEUTIC FORMULA VITAMIN CAPSULES SQUIBB

SQUIBB

When the diagnosis is Cystitis

First:

consider

to establish
and maintain
urinary antisepsis...

Four properties, in particular, make MANDELAMINE* a drug of choice whenever a diagnosis of urinary-tract infection has been made. MANDELAMINE has a wide therapeutic range, it retains its potency (even against organisms which have become resistant to other drugs), and it is relatively safe and simple to use.

Never are such properties more desirable than in the treatment of cystitis. It is therefore not surprising to find MANDELAMINE used widely, and with excellent results, in this disease (*cf.* Lowsley, O. S., and Kirwin, T. J.: Clinical Urology. Baltimore, The Williams and Wilkins Company, 1944; vol. 2, p. 1178).

MANDELAMINE is also indicated in pyelitis, prostatitis, nonspecific urethritis, and infections associated with urinary calculi or neurogenic bladder, as well as for pre- and postoperative prophylaxis in urologic surgery.

MANDELAMINE is available in bottles of 120, 500, and 1,000 enteric-coated tablets, through all prescription pharmacies. Literature and samples on request.

NEPERA CHEMICAL CO., INC.
Pharmaceutical Manufacturers
NEPERA PARK, YONKERS 2, N. Y.

*MANDELAMINE is the registered trademark of Nepera Chemical Co., Inc., for its brand of methenamine mandelate.

LETTERS TO THE EDITOR

This department is offered as an Open Forum for the discussion of topical medical issues. All letters must be signed. However, to protect the identity of writers, who are invited to comment on controversial subjects, names will be omitted when requested.

TIMING CARDIAC MURMURS

"In your issue of November, 1950 Volume 78, No. 11, pages 514-516, Dr. Alan L. Spafford of Kansas City, Missouri, has written an article on 'Cardiac Murmurs and Their Interpretation.' He says: 'In timing the murmur the examiner's finger must be placed on the neck over the carotid artery.' The point would not be stressed so much were it not important to realize that there is a manifest tendency, which is tradition, for the medical profession to exaggerate the accuracy of its objective methods of examination. If the stethoscope is placed over the 2nd right cartilage and to-and-fro cardiac murmurs are heard, it is sufficient; there is then no need to attempt the timing of these murmurs—the first is necessarily systolic, and the second is necessarily diastolic.

"Sir Thomas Lewis once wrote: 'It is erroneous to believe that the murmur is usually recognized by timing, although this is steadily taught. Most people, though capable of identifying the chief murmurs readily, cannot and never will time murmurs reliably. They recognize this murmur of mitral stenosis the instant it is heard, as I do myself in routine work, by its low-pitched, abruptly-ending noise. Much labour is lost and many ultimately

—Continued on page 46a

a *New* important achievement in anemia therapy

HEPTUNA PLUS provides a unique combination of the many factors now known to be essential to hemopoietic efficiency.

VITAMIN B_{12} AND FOLIC ACID — for effective stimulation of the hemopoietic tissues to greater production of red blood cells.

FERROUS SULFATE, COPPER, ZINC, AND COBALT — for rapid and dependable hemoglobin regeneration.

OTHER MINERALS AND VITAMINS — for maintenance of efficient enzyme functioning vital to blood formation and correction of nutritional deficiencies which complicate the anemia syndrome.

For *true* hemopoietic therapy in all anemias, specify..... **Heptuna plus**

Each Capsule Contains

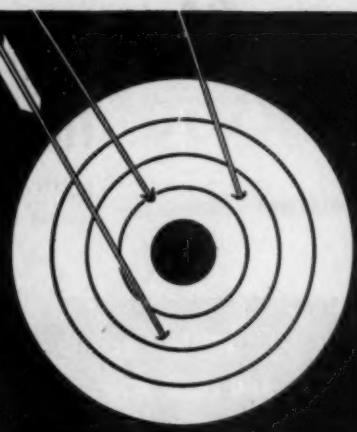
Ferrous Sulfate U.S.P.	4.5 gr.
Vitamin B_{12}*	2 mcg.
Folic Acid	0.85 mg.
Cobalt (Cobaltous Sulfate)	0.1 mg.
Copper (Cupric Sulfate)	1 mg.
Molybdenum (Sodium Molybdate)	0.2 mg.
Boron (Sodium Metaborate)	0.07 mg.
Calcium (Dicalcium Phosphate)	66 mg.
Iodine (Potassium Iodide)	0.05 mg.
Manganese (Manganous Sulfate)	0.033 mg.
Magnesium (Magnesium Sulfate)	2 mg.
Phosphorus (Dicalcium Phosphate)	51 mg.
Potassium (Potassium Sulfate)	1.7 mg.
Zinc (Zinc Sulfate)	0.4 mg.
Vitamin A (Fish Liver Oil)	5000 U.S.P. Units
Vitamin D (Tuna Liver Oil)	500 U.S.P. Units
Vitamin B_1 (Thiamine Hydrochloride)	2 mg.
Vitamin B_2 (Riboflavin)	2 mg.
Vitamin B_6 (Pyridoxine Hydrochloride)	0.1 mg.
Niacinamide	10 mg.
Calcium Pantothenate	0.33 mg.
With other B-Complex Factors from Liver.	

*An oral concentrate assayed microbiologically.

ROERIG Rx **J. B. ROERIG AND COMPANY** • 536 Lake Shore Dr., Chicago 11, Illinois

ALMOST ISN'T GOOD ENOUGH

Especially in your choice of a solution for rapid disinfection of delicate instruments—for Ward and Professional Office use...



BARD-PARKER

Chlorophenyl

containing HEXACHLOROPHENE (G-11*)

is free from phenol (Carbolic Acid) or mercury compounds, and is highly effective in its rapid destruction of commonly encountered vegetative bacteria (except tubercle bacilli), as shown in chart.

Did you know that BARD-PARKER CHLOROPHENYL is...

- **Non-corrosive to metallic instruments and keen cutting edges.**
- **Free from unpleasant or irritating odor.**
- **Non-injurious to skin or tissue.**
- **Non-toxic, non-staining, and stable.**
- **Potently effective even in the presence of soap.**

***Trademark of Sindar Corp.*

No. 300 B-P INSTRUMENT CONTAINER is suggested for your convenient and efficient use of BARD-PARKER CHLOROPHENYL. Holds up to 8" instruments.

Compare the killing time of this superior bactericidal agent

Vegetative Bacteria	50% Dried Blood	Without Blood
Staph. aureus	15 min.	2 min.
E. coli	15 min.	3 min.
Strept. hemolyticus	15 min.	15 sec.

PRICE
Per Gallon $5.00
Per Quart $1.75

Ask your dealer

PARKER, WHITE & HEYL, INC.
Danbury, Connecticut

B-P

A BARD-PARKER PRODUCT

Indication: Convalescence

Prescription: Feosol Plus

"A reconstructive tonic"

For those ill-defined secondary anemias—of convalescence, adolescence, pregnancy, etc.—where more than just iron is needed, Feosol Plus is the *logical therapy*. Feosol Plus corrects not only the iron deficiency but also other metabolic deficiencies which may co-exist.

Each Feosol Plus capsule contains:

Ferrous sulfate, exsiccated	200.0 mg.
Desiccated liver, N.F.	325.0 mg.
Folic acid	0.4 mg.
Thiamine hydrochloride (B_1)	2.0 mg.
Riboflavin (B_2)	2.0 mg.
Nicotinic acid (Niacin)	10.0 mg.
Pyridoxine hydrochloride (B_6)	1.0 mg.
Ascorbic acid (C)	50.0 mg.
Pantothenic acid	2.0 mg.

Feosol Plus by no means replaces 'Feosol'—the standard therapy in simple iron-deficiency anemias.

Smith, Kline & French Laboratories, Philadelphia

Dosage—3 capsules daily, one after each meal

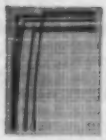
How Packaged—in bottles of 100 capsules

'Feosol Plus' T.M. Reg. U.S. Pat. Off.

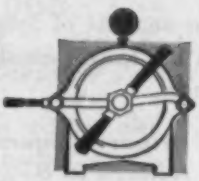
New improved # ANACAP®

SURGICAL SILK

5 *ways better than ever before*



1 *Greater tensile strength:* **One of the strongest silks ever created — smaller diameter sizes can be used everywhere to minimize trauma and foreign body reaction.**



2 *Withstands repeated sterilization:* **New Anacap Silk can be boiled or autoclaved *six separate times* without appreciable change in either strength or texture. In laboratory tests almost the full original strength is maintained even after 23½ hours of boiling.**

3 *Easier to handle:* **Firmer, not limp, Anacap Silk speeds operative technic. Braided by a new method that minimizes "splintering" and "whiskering" it passes readily through tissues. The ease of handling Anacap makes it a "new experience" in silk suturing.**

4 *Absolute non-capillarity:* **Having no wick-like action, new Anacap Silk is resistant to body fluids and will not spread an early localized infection if it occurs.**

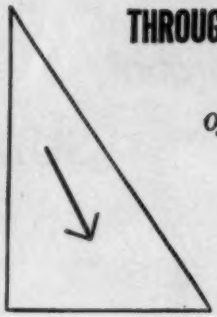
5 *Doubly economical:* **Low in original purchase price, new Anacap Silk is also low in individual suture cost because of its long sterilization life.**

In sizes 6-0 to 5 on spools of 25 and 100 yards; sterile in tubes with and without D & G Atraumatic® needles attached.

DAVIS & GECK, INC.

57 Willoughby Street *Brooklyn, 1, N. Y.*

Patient Carries on Normal Pursuits



THROUGH GRATIFYING RELIEF

of the symptoms of

urinary tract

infection

Throughout the course of treatment for urinary disorders many patients continue their usual activities, thanks to analgesia produced with orally administered Pyridium.

Pyridium can be safely administered concomitantly with antibiotics, the sulfonamides, and other specific therapy.

An analysis of symptomatic relief in 118 cases treated with Pyridium shows:*

Urinary frequency promptly relieved in 85% of cases.

Pain and burning decreased in 93% of cases.

*Kirwin, T. J., Lowsley, O. S., and Manning, J.: Effects of Pyridium in certain urogenital infections, *Am. J. Surg.* **62**: 330-335, December 1943.

The complete story of Pyridium and its clinical uses is available on request.

PYRIDIUM®

(Brand of Phenylazo-diamino-pyridine HCl)

Pyridium is the trade-mark of Nepera Chemical Co., Inc., successor to Pyridium Corporation, for its brand of phenylazo-diamino-pyridine HCl. Merck & Co., Inc. sole distributor in the United States.

MERCK & CO., INC.

Manufacturing Chemists

RAHWAY, NEW JERSEY

In Canada: MERCK & CO. Limited—Montreal

Double THE POWER TO RESIST FOOD...

in Obesity!

No one appreciates will-power more than the obese patient on a reducing diet. With all the high-caloric temptations that constantly beset obese people, supplemented will-power is really required to resist food.

OBOCELL, a new therapeutic substitute for will-power, is based upon the newer concepts of hunger and appetite. Each Obocell tablet supplies (1) the widely accepted appetite-curbing action of dextro-amphetamine phosphate, PLUS (2) the well recognized bulking action of methylcellulose, a non-nutritive material that suppresses bulk hunger by filling the intestines.

Composition: Each tablet contains Dextro-Amphetamine Phosphate, 5 mg.; Methylcellulose, 150 mg. **Supplied:** Bottles of 100, 500, 1000 at prescription pharmacies everywhere.

Literature and Samples on Request.

Obocell

IRWIN, NEISLER & COMPANY • DEPT. MT. • DECATUR, ILLINOIS

—Continued from page 20a

Transibarb Capsules

4-51

MANUFACTURER: George A. Breon & Co., 1450 Broadway, New York 18, New York.
INDICATIONS. For menopausal therapy, to minimize nervousness and apprehension frequently found in elderly patients with mental depression.
ACTIVE CONSTITUENTS: A central nervous system stimulant and a sedative in the proper proportions along with alpha tocopheryl acetates.
DOSAGE: As indicated.
HOW SUPPLIED: In bottles of 100, 500, and 1,000.

Obocell

4-51

MANUFACTURER: Irwin, Neisler and Co., Decatur, Ill.
INDICATIONS: To depress the appetite and suppress bulk hunger in the management of obesity.
ACTIVE CONSTITUENTS: Each tablet supplies dextro-amphetamine phosphate (5 mg.) to curb the appetite, plus methylcellulose (150 mg.), an indigestible, non-nutritive bulking agent of proven superiority in suppressing bulk hunger.
DOSAGE: As indicated.
HOW SUPPLIED: In bottles of 100, 500, and 1000.

Phenaphen with Codeine

4-51

MANUFACTURER: A. H. Robins Co., Inc., Richmond, Va.
INDICATIONS. Minimizes the need for other narcotics in the control of specially severe pain and fever. Also designed to reduce constipation, nausea, and other undesirable side-effects which frequently ensue when codeine alone is prescribed.
ACTIVE CONSTITUENTS: Contains codeine 1/4 gr. or 1/2 gr. acetophenetidin (phenacetin) 3 gr., acetylsalicylic acid 2 1/2 gr., phenobarbital 1/4 gr., and hyoscyamine sulfate .031 mg. (equivalent to approximately 1/4 gr. extract hyoscyamus).
DOSAGE: As indicated.
HOW SUPPLIED: In bottles of 100 and 500, two strengths of codeine, 1/4 gr. and 1/2 gr.

Acetoxy-Prenolon

4-51

MANUFACTURER: Schering, Inc., Bloomfield, N. J.
INDICATIONS: In the treatment of rheumatoid arthritis, lupus erythematosus, inflammatory rheumatism, osteoarthritis, other collagen diseases, menometrorrhagia and certain ophthalmologic conditions.
ACTIVE CONSTITUENTS: 21 Acetoxy-pregnenolone in aqueous suspension containing 100 mg. per cc. for deep intramuscular injection.
DOSAGE: As indicated.
HOW SUPPLIED: Multiple dose vial, 10 cc., 100 mg. per cc., box of 1 vial.

Ampave Tablets

4-51

MANUFACTURER: Sharp & Dohme, Inc., Philadelphia 1, Pa.
INDICATIONS: For control of narcolepsy and depressive states associated with fatigue, asthenia, menstruation, the menopause, old age, persistent pain and prolonged convalescence. In the management of obesity of adjunctive value as amphetamine curbs the appetite and caffeine stimulates motor activity. These effects aid in obtaining the cooperation of the patient in dietary restriction. Because of its favorable effect on the patient's mood, it is also recommended as a useful adjuvant drug in the treatment of acute and chronic alcoholism.
ACTIVE CONSTITUENTS: Amphetamine phosphate, a drug valuable for treatment of mild depression of psychogenic origin and caffeine, a psychic-sensory stimulant that allays drowsiness and produces a clearer, faster thought flow.
DOSAGE: Adjusted by the physician, begins with one tablet and is increased gradually until the desired effect is obtained. In general, the dosage is from one to six tablets daily.
HOW SUPPLIED: In bottles of 100 and 1000.

Prelude to asthma?

not necessarily . . .

Tedral, taken at first sign of attack, often forestalls severe symptoms.

in 15 minutes...Tedral brings symptomatic relief with a definite increase in vital capacity. Breathing becomes easier as Tedral relaxes smooth muscle, reduces tissue edema, provides mild sedation.

for 4 full hours...Tedral maintains more normal respiration for a sustained period—not just a momentary pause in the attack.

Prompt and prolonged relief with Tedral can be initiated any time, day or night, whenever needed without fear of incapacitating side effects.

Tedral provides:

theophylline	2 gr.
ephedrine	⅜ gr.
phenobarbital	⅛ gr.

in boxes of 24, 120 and 1000 tablets

Tedral

CHILCOTT *Laboratories* DIVISION OF The Maltine Company MORRIS PLAINS, NEW JERSEY

LETTERS TO THE EDITORS

—Continued from page 36a

fail to know this murmur through persisting in the effort to time, instead of learning to know it as one learns to know a dog's bark.'

"Learn to recognize the quality of the murmur, there will be no need to strain at every effort to time the thing. *Oraculum dixit*, if that is what the master thought who are we to differ?"

Pierre S. Katsareas, M.D.
The Johns Hopkins Hospital
Baltimore, Maryland

PARONYCHIA

Dear Dr. Ficarra:

"I noticed in MEDICAL TIMES, your article on the treatment of Paronychia.

"It was very complete, and I am sure would be most helpful to anyone who read it, but there is no mention of a Finger Protector which I think is quite useful after the acute phase has subsided.

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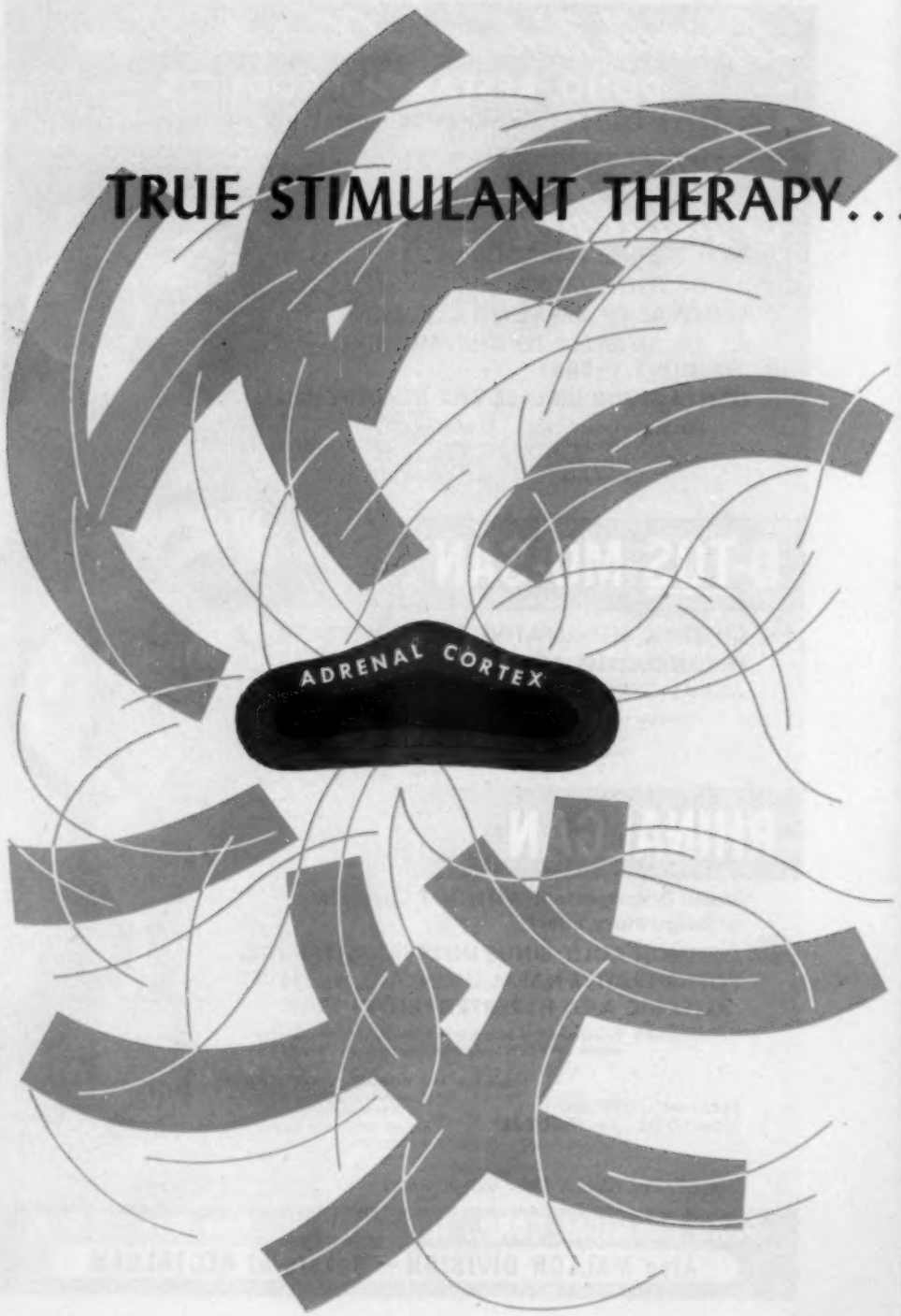

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[1]Terry, L. L. and Friedman, M. The Military Surgeon, Vol. 103, No. 5, November, 1948.
[2]Friedman, M. and Terry, L. L. Southern Medical Journal, Vol. 42, No. 6, June, 1949.
[3]Bohls, S. W. and Cook, E. B. M. Texas State Journal of Medicine, Vol. 41, November, 1945, p. 342.
[4]Reid, R. D., Felton, L. C. and Pitroff, M. A. Pro. Soc. for Exp. Biol. and Med., Vol. 63, 1946, p. 438.

* Patent applied for.

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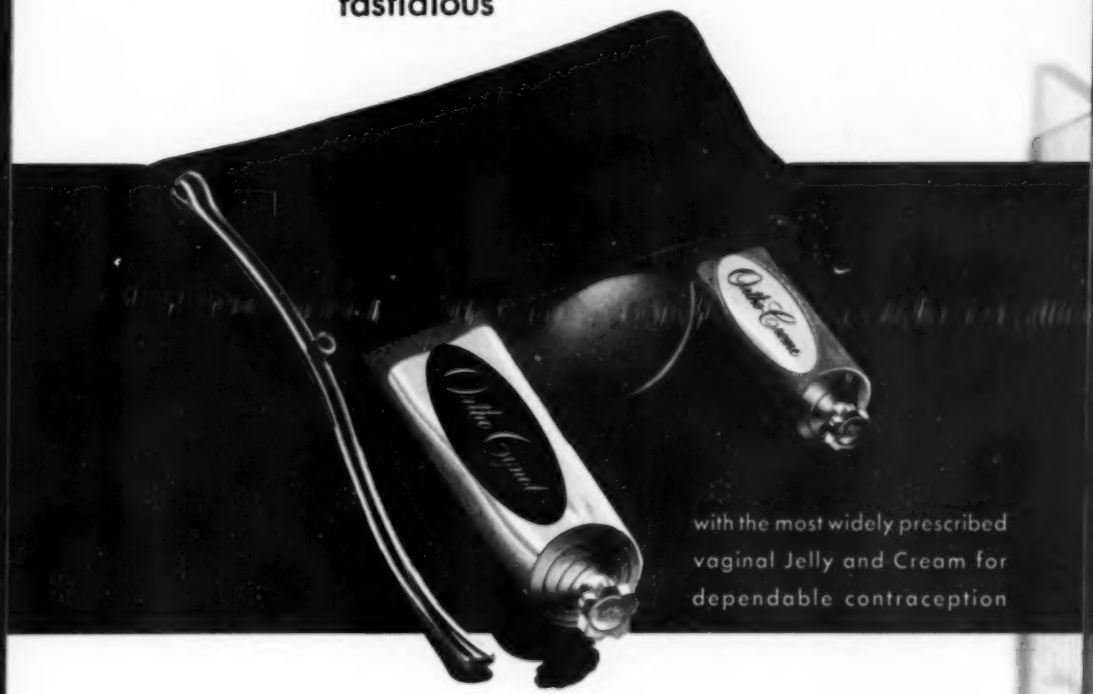

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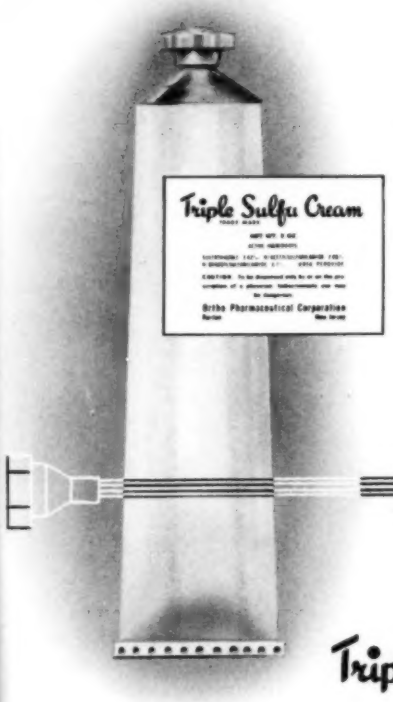

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1. Marbach, A. H.: Am. J. Obst. & Gynec. 55:511, 1948.
2. Blinick, G.; Steinberg, P., and Merendino, J. V.: Am. J. Obst. & Gynec. 58:176, 1949.

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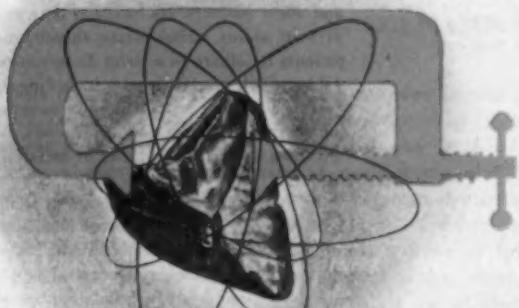

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The Obese Character

Psychodynamics and Psychotherapy as Adjuncts to Medical Management

ALFRED BLAZER, M.D.
New York, N. Y.

The reason why one often fails in treating the overweight patient, or has only temporary success, is because one is dealing with something bigger than obesity. One is dealing with a neurotic character structure. No matter how much he wants to coperate on a conscious level, the obese character has deep emotional needs which are very disturbing to him if he gives up excessive eating.

The character structure of the compulsive eater is unique in many fundamental respects and differs from other neurotic characters. The obese character is unlike the psychosomatic and other psychological characters described in previous articles.[1, 2] There are certain unconscious psychodynamic factors which have been well studied out and certain habit patterns which make overeating compulsory for emotional satisfaction and security. The general practitioner has to include some psychotherapy in his medical program to make it stick. To succeed with such psychotherapy he must understand how this type of neurotic operates.

Before we go further, however, we must make it clear that we are not discussing the organically stout person but the patient whose over-eating and obesity are entirely on a psychogenic basis.

The Obese Character Instead of didactically giving a description of the obese character[3] I reviewed one hundred unselected cases of psychogenic obesity in order to discover a common denominator, if any. A psychological character study of these patients, plus a five-year follow-up, was made analogous to that which one does in a cancer study, to see whether the effect of therapy was still present. These patients were treated at the Clinic of the Institute for Research in Psychotherapy. Others were from the medical clinic of the Fourth Division at Bellevue. The remainder were from private practice.

The most important criterion which I wished to check in these hundred cases was in answer to these questions. First, is there such a thing, psychologically speaking, as an obese character? Or do obese people vary so much in their psychological make-up that there is no common denominator? If the latter is true, then one couldn't have a common yardstick.[4] Thus the problem of psychodynamics would be complicated and would have to be studied out separately in each individual case.

The review showed, however, that although there were minor variations in the personality, the obese character is a stock

character, with a basic psychodynamic pattern which was never absent in any one of a hundred cases. This is fortunate because, with this guide, if one case is studied it will serve as a blueprint of the basic psychodynamics which can be used in study and treatment.

Therefore, instead of giving several case histories, I will give one which will illustrate the basic psychodynamics.

Case History Anna was 25-years-old, five foot-six and weighed 220 pounds. The referring physician had subjected her to a most thorough work-up which was her second work-up in three years. The other one had been as an in-patient at a large Metropolitan hospital. Both reports, including exhaustive laboratory data, were completely negative as to signficant organic findings.

Anna had just been divorced after a marriage which had lasted less than a year. At one time in the past low-calorie diet plus various medications such as thyroid and dexedrine had reduced her weight to 180 pounds. But at this point, without knowing why, she had left her physician, discontinued her diet and medication and had compulsively gone on eat-drunks which zoomed her weight back to the 220s.

Anna was interviewed twice a week, in 45-minute sessions, for over a year. Her father, mother and younger sister, Molly, the only sibling, were also interviewed, with her permission, as was her ex-husband, in order to cross-check the data.

Her mother was a domineering, self-centered, power-driven personality who had had, premaritally, a casual sexual relationship with the father. The father, an educated, detached, submissive, retiring sort of person, socially above the station of the mother, had taken the affair lightly and had had no intention of marriage. When the affair seemed almost over, the mother, who had no real interest in having a child, became pregnant. Anna still remembers their fierce quarrels in retrospect over this and her father's accusation that he had been deliberately trapped.

The wife countered by always posing as a martyr in her maternal role. Anna had been a feeding problem. The more her power-driven and frustrated mother rammed the food down Anna's throat, the more Anna vomitted it back, or had diarrhea. Born in a cold war between her parents, Anna unconsciously defended herself in the only way she could.

The mother was unable to give Anna the love, tenderness and care a child needs to develop emotional security, good self esteem and freedom from anxiety. To complicate matters, the mother was dimly aware of what was happening and felt a great sense of guilt. Passionately feeding her child like a steam roller seemed the only way to ease her conscience.

But this vomiting and diarrhetic baby did not give her surcease.

By the time Anna was 16 months old eating had become emotionally charged. Vomiting and diarrhea were unconsciously her only defensive devices. Thus she repudiated this counterfeit interest that her mother offered.

At this period her mother disappeared for the first time in Anna's life and was away for two weeks. When she came back she brought a little baby, the new sister Molly. As it often happens, the mother's attitude to the new child was different. The second baby was not born in the emotional *sturm und drang* of the first. Even the father did not have the grudge of the marriage trap against Molly. The grandparents and the relatives, as well as Mama and Papa, fussed over Molly and poor Anna was left in the cold. The mother now, busy nursing Molly, stopped stuffing Anna.

Anna struggled along until she was a little over two, still quite scrawny. Suddenly she began to eat like mad. Her unconscious defenses were reversed. No vomiting, no diarrhea, and now Anna was

a good little girl, eating as she should. Within a year a fantastic thing happened. Anna became an overweight problem. She had even been stealing food and gorging herself.

Anna was plump until she was 14 and then things became even worse. During adolescence she was caught masturbating. Her mother, with hysteria, furiously beat her. The girl never masturbated again. Later, as a wife, Anna suffered from frigidity and never had an orgasm.

Now, I don't want to imply that there was only the one traumatic reason for this. Many things happened to Anna and were forgotten but this episode and others reflect the day-to-day climate in which she developed and which formed her psychological character structure.

Anna became quieter. One could say, quite wrongly and superficially, a "model" child. She was reserved and withdrawn. Her capacity to be close to friends diminished. She spent a greater amount of time daydreaming between her more frequent trips to the ice box. She combined eating and fantasy in a blissful escape. Often she was anything but hungry and mechanically she would overload her stomach until she was nauseated. Yet, in spite of herself, compulsively, still not recovered from the nausea, she would begin to eat again. Her poundage mounted so that when she was 17 there were secondary results from obesity added to the primary problem. Relegated to isolation by her stoutness, she became a solitary eater, going on food drunks, like a solitary drinker.

The core of Anna's neurosis was a basic unconscious attitude toward herself, toward people and toward work. She felt inferior and inadequate and had a self-derogatory attitude, feeling helpless and dependent. Thus, her attitude toward others was unconsciously sensitive and defensive so that she would never feel at home with anyone and be secure enough to return their affection and interest.

In her work she also had problems, not only in the necessary work which has to be done but in creative work which should have given her pleasure and have expanded her ego. In her school work, and later in the clerical job she had, she had two difficulties. One was with her contemporaries, the other with figures. Thus she was unable to get into the heart of her work and enjoy it because her defensiveness left very little room for anything else. Her derogatory attitude toward herself kept her from most creative activities, such as art, crafts, hobbies, sports. Whenever she tried she felt so inadequate that she couldn't function.

When Anna was 24 and her sister was 22, an important event occurred which had repercussions. To begin with, Molly was slender, better adjusted and therefore more attractive. In Anna's world the culture expected early marriages. Her relatives worried that she would be left an old maid. Anna didn't have many boy friends and those she had often began to date the younger sister. At 24, most of Anna's contemporary girl friends were married and now to make things worse Molly made a brilliant marriage.

Anna, in her masochistic way, was always attracted to dominating, sadistic men and precipitously married Joe soon after Molly's marriage. They had a masocho-sadistic relationship which drove Anna into longer and stormier eating binges so that by the time her husband humiliatingly left her she was quite enormous.

She tried to reestablish herself during the interlude of the divorce but each physician failed because her emotional problem was never considered or constructively treated. In the depths of despair and tension, like an alcoholic, she reverted to her eating binges.

The Dynamics of the Obese Character The core of the problem is that the compulsive eater unconsciously has given up the struggle to preserve a non-deroga-

tory attitude toward herself, so that she is only able to have a shallow, defense rapport with others. In the same way her work life is routine, her creativeness is half-hearted and self-depreciatory. But since all human beings, to survive, must have some kind of security if they are not to be flooded with anxiety, she retreats to an earlier stage, historically, in her emotional development; to the unweaned level where the nipple and emotional security were one and the same thing.

The physician must not be deceived by the face value of what passes for the patient's interpersonal relationships. Fat people aren't funny; they wear a mask and are sensitive. Usually when they feel they can trust you they will also confess that their sex life is inadequate.

The dynamics above described is the primary mechanism but it may not be sufficient for the stout neurotic's security. She may frantically employ accessory defenses and resemble: 1) the submissive person, or 2) the overaggressive person, or 3) the withdrawn, schizoid person.

So that nothing is omitted I must add this complicating thought. People with other types of neurotic character structures and even normal people will occasionally, under special strain or circumstance, do a little compulsive eating, just as they might chain smoke or get drunk, without belonging to the classification of the obese character.

The Technique of Psychotherapy Within the Medical Program In the medical management of the compulsive eater, psychotherapy is a Must. Usually it is a homemade improvisation without knowledge of the psychodynamics.

1. Transference Rapport The essence of phychotherapy since the time of Hippocrates has been the establishment of a good transference rapport between the patient and the doctor which is used to influence the patient in the direction of health. The term is of recent vintage but the wine is very old.

Let us define what transference rapport really is. In this ideal patient-doctor relationship the patient transfers her unconscious feelings to an idealized parent image (which she may never have had in reality). She invests the physician with omnipotence, omniscience and a sympathy which she needs. The doctor deliberately cultivates this feeling by giving the patient an atmosphere of approval, understanding and security to re-expand her ego and self esteem from the point where it was stunted in earlier life. In such a climate the patient becomes very suggestible and in a non-directive way can be subtly led into a new attitude toward herself, toward people, toward life, toward work and toward creative outlets. New real-life experiences with the physician and then with other people take her out of the old neurotic rut into a world of wider horizons.

2. Insight Insight can often do more harm than good. If it is given prematurely, before the patient is thoroughly at home, she will become defensive and interpret it as a criticism which is a rebuke and a rejection. Insight used later, sparingly, for a strategic purpose, can be an incentive to help a patient change her way of life.

3. Listening to the Patient To do this successfully you can't spend visit after visit just listening to the patient's heart and blood pressure; you have to listen to the patient. The problem is with the total person. An interview should be at least 45 minutes long, and at the beginning at least once a week—twice a week is better. Be a good listener. Don't interrupt. Encourage the patient to talk about her intimate problems. Be encouraging and let it all come out even though some of it might be obvious to you. Let her get a load off her chest. She's watching your expression, to see whether you yawn or are unsympathetic. If you can't do this constructively you can't do psychotherapy. Your being passive as a listener is already

therapy and automatically encourages her to be expansive.

4. Devices for Drawing out the Patient After the patient has said everything that is on her mind and comes to a pause, permit a short silence to see if she will spontaneously resume talking. Sometimes it is enough to repeat her last few words. If this fails, suggest, "Could you tell me more about that?" Another technique is to say, in a warm, friendly manner: "Can you tell me what is going through your mind now?"

You can usually sense from the first interview what are the sore spots in the patient's life: her relation with her husband or boy friend, for instance, or with her mother or her child. In an encouraging way you can say: "Tell me more about you and your husband. Tell me the story of your marriage from the very beginning, from the courtship and so on."

The purpose of the conversation is only incidentally to get information. Unburdening the heart aids in the establishment of the transference rapport.

5. The Sex Problem Sometimes spontaneously, but more often by subtle encouragement, with proper timing, it is good for the patient to discuss her sex life. Most patients will tell you later that they were glad to find someone with a sympathetic and understanding ear. Often you will find that the patient is getting inadequate or no sexual satisfaction.

6. Therapeutic Goals

a). The object should be to build up the patient's ego, to increase self-esteem and self-confidence to the point of action, so that the patient can use these with other people in her life in the same way that she is beginning to use them with her therapist.

It is important to decrease her sense of guilt. Most obese patients have an uncomfortable super-ego. Both the super-ego and the patient have to lose weight.

b) It is advisable to help the patient expand her horizons. Her basic lack of self-confidence may have prevented her from developing her creative talents and she should be encouraged to recognize her gifts where they are latent. This is like occupational therapy and the patient can learn to live outside herself in some craft or hobby or art activity or sport which expands her self confidence and self esteem.

There are two things about occupational therapy. The first is that it should not be a grafted activity suggested to the physician because he thinks it is interesting. The patient may not succeed in or enjoy what appeals to him and may only feel inferior or inadequate as a consequence. From her past or childhood history it is possible to discover what she really likes and would find rewarding. Only in this way will she learn to develop her own creativity and get ego-building satisfaction.

The more creative the patient becomes the more her ego will expand and her poundage contract. Thus the physician will have the satisfaction of seeing a decrease in her intake with every increase in her outgoing.

5 East 73rd Street

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Appointments

University of Wisconsin regents recently approved the appointment of Dr. Milton Davis, Jr., as associate professor of anesthesia in the Medical school.

The appointment of Dr. Richard T. Smith as staff physician in the Medical Division of Sharp & Dohme, Incorporated, was announced recently by Dr. W. P. Boger, Acting Medical Director.

Exposure to Cold

This summarization attempts to cover the essential therapeutic information on the subject and is designed as a time-saving refresher for the busy practitioner.

Exposure to cold is a common experience in northern latitudes. The clinical syndromes occasioned by such exposure occur regularly in maritime and sport areas, but are more frequently seen in time of war. Increased numbers of men are then engaged in pursuits involving the risk of cold exposure on land, in the air, and at sea (maritime and aviation disasters). Many men then are exposed for prolonged periods, sometimes with no alternative but sudden death from action by the enemy. Considerable, but apparently insufficient, attention has been given to the diagnosis and treatment of the exposure syndromes. Information on the treatment of hypothermia is not widely disseminated. A search of the ordinary textbooks and multi-volume reference works which are available to general practitioners failed to disclose information on hypothermia.

The information to be presented here has been gathered from some rather interesting sources. World War II was the stimulus for an intensive study of the cold exposure problem at home, and also abroad by allies and the enemy. The United States Department of the Air Force has published "German Aviation Medicine of World War II"[6] with chapters devoted to this subject. The National Research Council produced "Physiology of Heat Regulation"[5] in which American civilian scientists report the present status of our knowledge on climatic problems as they affect military life. Alexander Mitscherlich ("Doctors of Infamy") reports to the German medical profession on the Nuremberg trials. In his book[3] the low temperature experiments on human prisoners at Dachau are related. As early as 1940, there were recorded observations of therapeutic hypothermia, induced by packing cancer patients in ice in attempts to check the spread and even reduce the size of tumors. These sources, and personal observations, are the background for this review.

Physiology of Heat Regulation

Thermal control of the body probably is vested in a pair of antagonistic or balanced heat centers. In the posterior hypothalamus is a center for control of body cooling. This is matched by a center for control of overheating which probably lies near the nuclei supraopticus and paraventricularis.[5, p. 157] The several layers of the scalp, the thick calvarium, and the absence of more than a few vascular channels crossing these insulating barriers provide the cranium with a large insulating capacity. In consequence, the heat regulatory centers respond but little to the temperature of the environment of the head. They do respond directly to changes in temperature (and chemistry) of the arterial blood which reaches them through well-insulated, deeply-lying, internal carotid and vertebral arteries. Additional fac-

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tors in thermal control are endocrine and reflex vasomotor responses. These function independently as well as coordinately with the heat regulatory centers.

Physiologic regulation of body temperature consists of balancing heat production and loss. Production is subject to pituitary, adrenal and thyroid control[5, p. 119] and the availability of nutritional substances. Fifty large calories per square meter of body surface area per hour may suffice while at rest. The rate can jump by ten times for heavy work. It can jump from four to eight times, without exercise, merely by the onset of shivering.[5, p. 236] Heat loss is achieved through the skin and lungs. The amount lost via the lungs depends upon the air temperature, density and humidity, as well as the respiratory rate and depth. The amount of heat loss from the skin surface (radiation, conduction, convection and evaporation of water) depends on the relative degree of vascular dilatation of surface and near-surface blood vessels, the pattern of dilatation and constriction which is set up, and other factors such as pilomotor response, sweat gland function, etc. The amount of heat lost from the skin and lungs by water evaporation is relatively greater at lower environmental temperatures.

Reduction of heat in response to cold environment is initiated by peripheral vasoconstriction. Thereupon the surface tissues serve as insulation. When, despite vasoconstriction, heat loss produces a fall in body temperature, mechanisms for increased heat production are invoked. Shivering is one of these. The release of adrenalin with resultant mobilization of liver glycogen, increased availability and use of glucose, increased metabolism of muscle tissue, changes in pulse and added cardiac output, is another of these. Vasoconstriction of the superficial vessels reduces the environmental cooling effect by decreasing the amount of blood reaching the surface, becoming cooled and returning to the heart below body temperature. There is a further change, referred to above as the "pattern of dilatation and constriction." The venous blood is thereupon returned mainly through venae comites, in close proximity to the arteries carrying blood to the exposed surface. Consequently arterial blood loses heat by warming the returning venous blood. This prevents cooling of the interior of the body by loss of blood heat to the exposed body surface. In effect, the body surface is permitted to cool while the temperature of the body interior is maintained constant as long as possible. The surface constriction requires splanchnic dilatation. Long continued cold exposure is accompanied by reduction of blood volume. Initially fluid alone is removed and increased viscosity results. Later, plasma protein is removed and normal protein concentration is achieved. Increased viscosity is maintained because of the still slower withdrawal of red cell volume. Indeed, in severe cold exposure, heart failure is apparently the cause of death, due in large part to "functional exhaustion due to great increases in blood viscosity."[5, p. 268]

The large surface area (relative to mass of tissue) of extremities requires that they be separately considered. They suffer extreme degrees of decreased blood supply as a physiologic mechanism for conserving body heat. They often withstand protracted, severe, relative ischemia with no evident injury. During such periods, the temperature of the extremities approaches that of the environment. Severe cold, however, may stimulate dilation—as a reaction to injury. Thus, the vasoconstrictor response (to conserve body heat) may be abandoned for vasodilatation as a secondary, protective mechanism to save the severely cooled extremity. That such alteration in physiologic response is not 100 per cent effective is evident by the several clinical variants of peripheral cold injury.

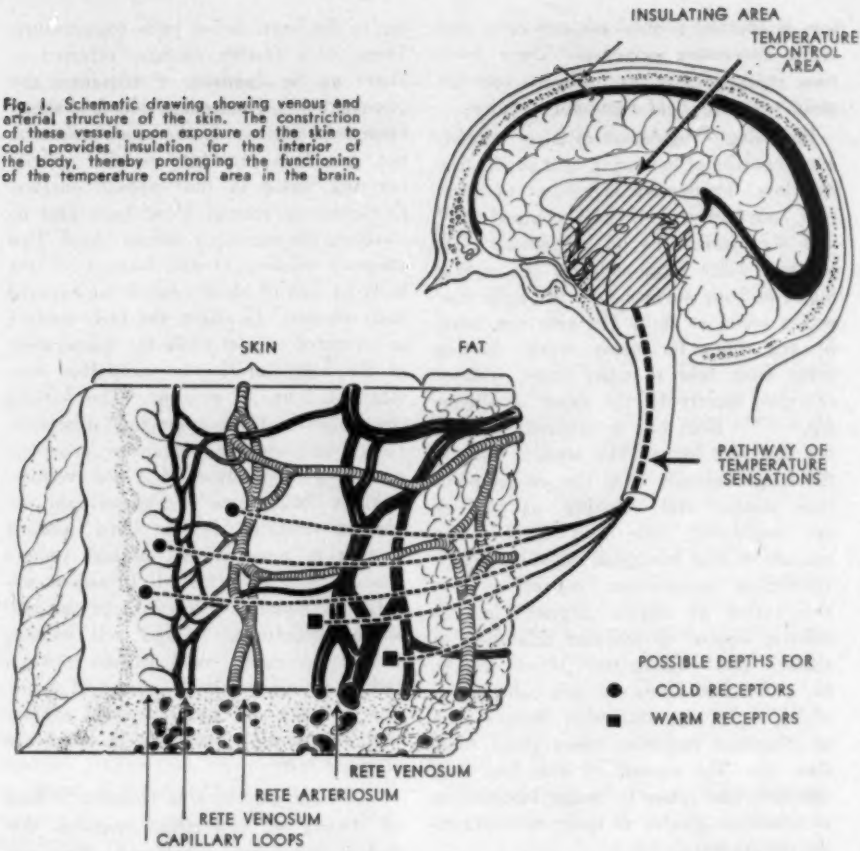


Fig. 1. Schematic drawing showing venous and arterial structure of the skin. The constriction of these vessels upon exposure of the skin to cold provides insulation for the interior of the body, thereby prolonging the functioning of the temperature control area in the brain.

Hypothermia Elevation of body temperature (fever) is universally regarded as medically significant. A fever of 108°F. represents an average temperature rise of about 9°F. and is generally considered serious. A similar fall to around 90°F. cannot be accurately measured on most clinical thermometers because the calibrations usually extend down only to 94°F. Furthermore, scant attention or thought is given to the possibility of such a fall in body temperature. The possibility becomes far more significant in military life. Sentries exposed to severe cold longer than 90 minutes frequently suffer a drop in body temperature. If relieved for a fifteen minute break hourly, admitted to a warm room and given a hot drink containing sugar, their body temperature will climb back rapidly and they will be more alert, warm and safe during the ensuing hour. This is due to a prolonged vasodilatation reflexly from the gastrointestinal mucosa. Danger of frostbite will be postponed several hours.

Drops in interior body temperature may be produced by any prolonged experience which is characterized by an excess of heat loss over heat production. The classical military experience is that of World War II aviators who bailed out over the sea. The Germans suffered such casualties particularly in their Norwegian campaign. The allies had many experiences

with immersion hypothermia in the English Channel. Prolonged immersion of the body in cold water where the rate of heat loss is twenty times as great as in air, results in depression of body temperature. "An exposure of one hour in water at 40°F. can be expected to kill 50 per cent of the men immersed" wrote Molnar.[4] The more rapid heat loss in water is due to the poorer insulative value and higher conductivity of water.

Nevertheless, hypothermia will occur from exposure to cold in air. The Germans encountered this particularly in their Russian winter campaign. The cases in Russia "occurred mainly in snowstorms where the individuals were not sufficiently protected by adequate and—most important — waterproof clothing."[6b p. 828] There are circumstances which lead especially to the occurrence of hypothermia. Look for it in exposed children and old people because they both have less effective temperature regulatory mechanisms than adults. Look for it among exhausted men. It occurs readily in those who fall asleep while exposed, because heat production decreases during sleep. It happens to those whose clothing is soaked with water and who are then exposed to a strong wind. It is more frequent among cachectic individuals.

The heat loss occurs by transfer of body heat to the cold air or water via the skin surface and lungs. Immediate constriction of peripheral vessels serves to decrease skin loss, making the body surface virtually a layer of insulation for the body interior. The fraction lost through respiration is not decreased by vasoconstrictive mechanisms. The percentage loss via the lungs is increased with lowering of air temperature and humidity. With fall of body temperature, chemical processes are slowed. The intrinsic ability of the body for heat production decreases (instead of increasing to meet the need). At a temperature below 90°F. the brain center for protection against cold is depressed and its protective activity fails. Increased cardiac output would be desirable and is seen initially with a transient rise in pulse and blood pressure. A temperature drop beyond 2 to 4°F. generally produces bradycardia and a subsequent, gradual, continuous fall in blood pressure. With exhaustion of glycogen and fat reserves, there ensues an additional drop in cardiac output. Low blood sugar is "a particularly characteristic feature of prolonged hypothermia."[6b p. 838] This follows the initial hyperglycemia. A realization of the differences between the state of affairs in early and late stages is essential for proper interpretation of the findings in suspected hypothermia. Mobilization of fat may result in lipemia and acidosis or acetonuria.

The patient may not be seen until a death-like state of physiologic depression has supervened. In any situation where the diagnosis of hypothermia is a good probability, do not abandon or neglect to give treatment because of apparent death unless the body temperature has been taken rectally and found to be lower than 64°F. and muscle rigidity is absent.[6b p. 841]

The treatment consists first and always of rewarming. The best method as yet devised consists of body immersion in warm water. If the patient is conscious, he will suffer severe pain if lowered at once into water above normal body temperature. It is kinder, therefore, to have the bath about 93° F. initially. In 5 to 10 minutes, increase the bath temperature to 104°—109° F. In especially severe or unconscious cases, bath temperature above 100° F. should be used at once. The pain stimulus will assist reactivation of vital activities.

There are substitutes for the hot bath, but it is the ideal, basic therapy. You may wrap the patient in hot, wet cloths, covered by wool blankets and supply exogenous heat by diathermy or other sources.

Inhalation of carbogen (or air and carbon dioxide) tends to increase the respiratory minute volume. It will reactivate the carotid sinus depressor reflexes and increase arterial pressure. Atropine, by diminishing vagal influence, and increasing peripheral vascular tone, will enhance the patient's welfare. An infusion of glucose, subcutaneously or intravenously, is favored even if there be no hypoglycemia. It will tend to increase circulation and build up the pulse pressure. Do not delay the warm bath for this or anything else. Adrenal extracts are indicated. If cardiac insufficiency is apparent, cardiac glucosides should be administered. Stimulants such as coffee or parenteral caffeine are worth trying in selected cases.

As soon as the patient is able to take liquids by swallowing or tube feeding, begin administration of hot, sugar-laden drinks. This will provide a source for replenishment of depleted body reserves of glucose. It may also tend to initiate peripheral vascular dilatation.

The use of epinephrine is of doubtful value. Wayburn[7] and others have declared it to be harmful. Hypothermia has already produced an epinephrine effect, mobilizing glycogen, modifying the vascular pattern to favor blood supply to active muscles, increasing the tissue capacity for assimilation of glucose and increasing heat production.[5p. 126 and 178]

Grosse-Brockhoff describes some late sequelae of hypothermia which should be noted. The heart, after prolonged hypothermia (12 or more hours) may be permanently dilated. Look also for electrocardiographic changes with depressed S-T segment and widened QRS complex. Psychic derangements, such as hallucinations, apoplectiform and epileptiform conditions are also described as possible late after-effects of a prolonged hypothermic experience.

Prevention of Hypothermia From the preceding discussions of the clinical picture and treatment, it is obvious that hypothermia is a serious problem. Its possible late sequelae are extremely undesirable. From the military standpoint, it means casualties just as significant as losses inflicted by enemy action. Prevention is therefore of utmost importance. The answer lies in the provision of adequate clothing, elaborate instruction including the proper use of clothing, command recognition of the dangers inherent in exposure, and adoption of standard operations procedures to decrease exposure to cold. Medical and line officers must understand that there is a relationship between even a slight fall in body temperature and the incidence of frostbite, immersion limb and trench foot. They should recognize the importance of but also the limitations of acclimatization to cold. Casualties in Korea from exposure to cold have been so numerous that we may speculate whether the cold exposure problem has received sufficient attention.

Clothing fabric derives most of its insulative value from the entrapped air. In absorbing water, fabric loses this insulative value. To be of protection to the immersion victim, clothes must retain insulative air or provide other material with insulative value at least superior to that of water. "Even under the most unfavorable condition, 75 per cent cellulose-wool mixture has four times the insulation of a nonmoving water layer of the same thickness."[6-a p. 882] The retention of trapped air or gas in fabric remains the most practical means of insulation today. This requires, for men falling into the sea, water-tight garments over heavy, winter-type clothing. The water-tight garments should not constrict the legs. There should be no opening at the bottom, but wader-type feet instead. The garment must be tight about the neck and wrists to prevent the entrance of water at those places.

Command decisions may have the effect of determining whether combat troops will

suffer hypothermia needlessly. Recognition must be given to the necessity of avoiding exhaustion leading to sleep while improperly insulated from heat loss. Men with wet clothing must be kept out of the wind. Proper food to combat the cold must contain sufficient calories, at least 15 per cent of which should be protein. Adequate vitamin intake is said to be essential. The peripheral vasodilating effect of periodic, warm drinks and temporary warm shelter should be recognized. Frequent, temporary relief of sentries is recommended for standard operations procedure during cold weather.

Other Cold Exposure Syndromes

Most important of all to the military is the relationship between hypothermia and the more frequent cold exposure afflictions: frostbite, immersion limb and trench foot. The later may all be grouped together and called peripheral cold injury. As outlined above, the reaction of the body to cold is one designed to preserve the internal temperature even at the risk of injury to the body surface or extremities. The reaction is a profound reduction in peripheral blood flow with a decided lowering of temperature of skin areas or even entire portions of an extremity. This reaction is the basis of the various peripheral cold injuries.

Frostbite is a borderline state between outright freezing and immersion damage. In most cases it occurs when the air temperature is near but above rather than below freezing. Its occurrence is favored by conditions favoring loss of heat from the body as a whole. Any threat of loss of body heat results in peripheral vasocon-

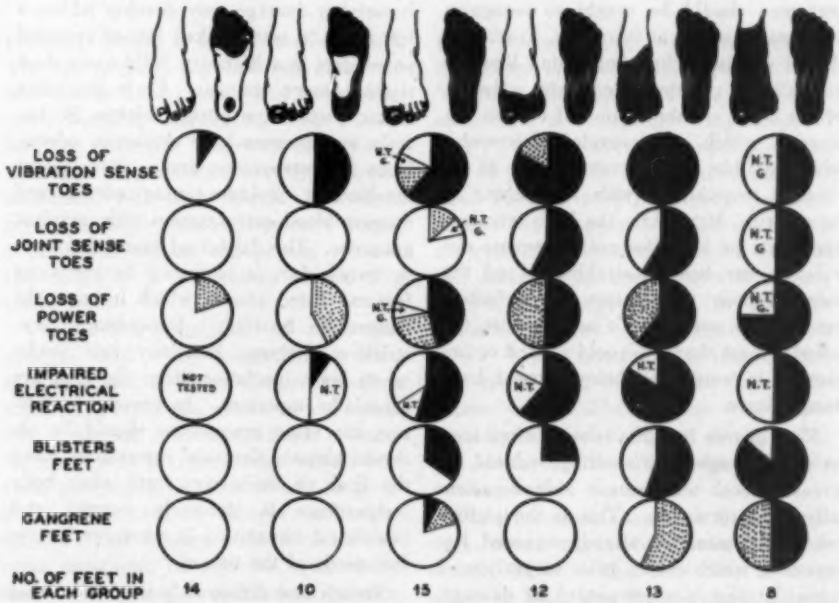


Fig. 2. Classification of cases of immersion foot according to the extent of anesthesia at 7-10 days after rescue.

Black in feet represents anesthesia.
Black in circle indicates proportion of feet affected in each group.
Stippled areas show partial defects on superficial as opposed to deep gangrene.
N.T. marked areas representing feet not tested.
N.T.G. marked areas representing feet not tested because they are gangrenous.
(From an article on Immersion Foot Syndrome by Ungley, Channell, and Richards.)

striction. Wet shoes, drafts, cold or strong winds, contact of the body with cold metal or stone, wet clothing, etc. favor heat loss. Tight shoes and clothing producing axillary pressure or constriction about the arms or legs favor reduction of blood supply. Lack of bodily exercise favors decreased heat production and poor circulation. Exhaustion, lack of food and wound shock favor cold injury. Low oxygen tension at high altitudes in mountain terrain or in airplanes makes an otherwise adequate circulation less protective against cold injury.

Frostbite of first degree is characterized by swelling. There is an initial stage of anemia due to vasoconstriction. That is the ideal time for treatment but the patients are almost never seen at that stage. To prevent damage severe enough to require evacuation of personnel, medical corpsmen should be taught to recognize and treat frostbite at this stage. Treatment should consist of hot, nourishing liquids; ample, dry clothing; complete warming of the body; administration of oxygen (in aircraft which are provided therewith) when feasible, and encouragement of increased respiration (with rebreathing if necessary). Meanwhile the limb temperature must be kept low until adequate circulation has been re-established and the internal body temperature has definitely returned to normal. To achieve this, the affected part should be cold-packed or immersed in water well below normal body temperature.

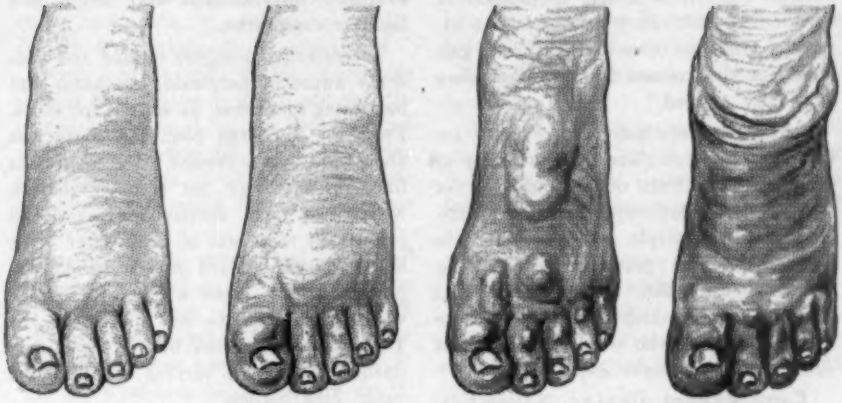
First degree frostbite is more often seen at a later stage, with swelling, redness, increased local temperature and, occasionally, bleb formation. This is the picture when rewarming has already occurred. Rewarming which occurs prior to peripheral vasodilatation is accompanied by damage. That is due to the fact that increased metabolic needs arise in limb tissues at body temperature. Such increased needs cannot be met by the circulatory capacity of constricted vessels. Because these metabolic needs are not met, there is anoxemia and local death of tissue. Had the limb been kept cool until the interior of the body regained normal temperature, there would have been no appreciable excess of oxygen demand prior to the recovery of peripheral vasodilatation. Consequently there would have been no serious damage. The secret of military success in reducing frostbite casualties lies in early, successful, on-the-scene treatment as outlined above.

Second and third degree involvements in frostbite constitute the addition of various extents of gangrene to the previous picture. Third degree may be accompanied by severe prostration and fever.

There is little distinction between immersion limb and trench foot. Prolonged cooling of a wet extremity results in deep tissue damage. Sensitive nervous and muscular tisues suffer most, the skin less. Immersion damage may develop within a few hours in watersoaked feet of crowded passengers in a lifeboat. Mild cases show slight sensory changes. Early but more severe cases have pitting edema. Moderately severe cases have erythema, edema, blebs and ecchymotic areas. Very severe involvement includes gross edema and massive blood extravasation with incipient gangrene. The danger of immersion limb or trench foot is increased by the same factors (listed above) which increase the danger of frostbite. Dependency, constrictive clothing, inactivity and inadequate body insulation from the cold are especially important. In preventing damage, the same precautions should be observed about differential rewarming. Keep the limb or limbs cool until after body temperature is definitely normal and peripheral circulation is adequate for the full needs of the tissues.

Trench foot differs only in the fact that it is perhaps more insidious, developing more slowly and occurring despite exercise. Its prevention is relatively simple on paper but extremely difficult in the field. The most neglected factor is that

Fig. 3. Illustration of the degrees of damage in Trench foot.



1st Degree
Early. Persistent red flush and edema.

2nd Degree
Early. Hyperemia, pulsation of vessels and throbbing pain and beginning blisters.

3rd Degree
Early. Acute inflammation, extensive blistering.

3rd Degree
One month after exposure, showing gangrene.

of mental fatigue or loss of morale. Troops who are properly supplied and instructed will change to dry socks and boots regularly, warming and drying their feet at frequent intervals. They will do this only so long as they remain relatively fresh and ambitious, with high morale. All these favorable factors are not operative during a prolonged combat engagement. Hence the difficulty in preventing trench foot casualties.

The further treatment of these peripheral cold injury syndromes is very similar to that of burns. Proper dressings are used to avoid contamination and undue loss of plasma. Intravenous fluids containing colloids to prevent further edema and assist peripheral dilatation should be given early. Priscoline, to achieve further increased blood supply, is indicated. Novocaine anesthesia of adjacent sympathetic bundles is reputed to increase circulation locally for five to six hours. It should be done very early in treatment and is particularly useful in the legs.

Acclimatization Australian aborigines, arctic Eskimos and Fuegians, all represent human beings who have adapted themselves to severe cold exposure. The Yahgans, who lived on Tierra del Fuego, endured a mean annual temperature of 42.8°F. with an average annual precipitation of 24.8 inches. Strong winds are common. Yahgans went barefooted and bareheaded and almost naked. Charles Darwin observed these primitive people in 1832 and described his encounter with a party of six, completely naked, in an open canoe on the sea. The temperature was 45°F. A cold wind was driving a heavy rain down upon the group. One of the natives was an adult woman who unconcernedly suckled a baby. Both mother and child were completely exposed to the wet and cold.

The Australian aborigines likewise endure severe exposure to cold and are usually naked. The Australian climate differs in being dry. Natives sleep through the cold nights with no covers at all. Careful investigations have been made to determine how these people can endure and be healthy with such exposure. "Granted that no white man . . . is anxious to sleep

out of doors with no clothes on in freezing weather . . . It is simply a question of whether the skin, when accustomed to exposure, functions more efficiently as a garment for the tissues than it does when habitually clothed."

Continued investigation is required before we have complete understanding of acclimatization. Such understanding is not prerequisite to military or civilian utilization of the principle. It is essential to comprehend that gradual, increased exposure is desirable. Endurance to cold must be required and made a part of the training of men who will run the risk of prolonged or intensive exposure.

Case Report During November, 1950, an asthenic, 25-year-old man set out at sunrise in a small duck boat. He paddled to a duck blind on a 2,000 acre lake which averages five feet in depth. He wore cotton underwear, wool shirt and trousers, hunting coveralls of wool, a shooting jacket of canvas, a sheep-lined parka and hip boots of rubber, over wool socks. His breakfast consisted of two doughnuts. The air temperature on this overcast, windy day hovered between 28° and 34° F. In sheltered, shallow coves, there were thin sheets of ice. The twenty-mile wind churned up open stretches of water so that the water temperature in general was about 40° F.

After some five hours on the lake, observing the flight of ducks, remaining quietly in his blind hoping for a shot, and therefore having practically no exercise, the hunter swamped his unstable craft. His shotgun sank to the lake bottom. His boat, which had been anchored, remained in place. It was awash, however, and offered him no support. He probed and discovered that he could touch bottom with the surface water up to his shoulders. There was an empty, airtight gas can. It served him as a support and he clung tightly to it. Thinking of his gun, he kicked off one boot and shed his parka. Then he began a diligent search of the lake bottom with his one bootless foot. Probably thirty minutes were lost in this luckless exploration.

Thereafter, thoroughly chilled and suddenly aware of perplexing weakness and increasing numbness, he set out for shore. From the anchored boat, the shore was about 300 yards distant. By a straight line, the pathway led through shallow weed beds and similar obstacles, but fortunately there was no deep water. The hunter moved forward intently but he was burdened by a great weight of clinging, wet clothing; and he was stiff from cold. The gas can assisted him in remaining upright despite the varying depths of the rough lake bottom.

A rescue party found him about 3 P. M. He was discovered several hundred feet from the point at which he had reached shore. That point was plainly discernible by marks in the sand. He had been unable to walk upright on the land, where he lacked the external support of the buoyant water. Consequently he had crawled or dragged himself along the beach. This left clear evidence of his progress. Some insight to his mental state is revealed by the fact that he clung tightly to the gas can and dragged it with him along the shore. When found, he was utterly exhausted. He lay, unable to advance farther, exposed in his wet clothes to the full force of the cold, northwest wind which blew at him from across the broad lake.

He was bundled in dry blankets by the rescue party and hurried to a doctor by automobile, without having his wet clothes removed. He was given two shots of brandy during the thirty-minute drive. On admission, his temperature was far below 94° F., the lowest calibration on the thermometer. His face and extremities were cyanotic. His response to questions was a mere blink of the eyes. He made abortive attempts to assist us in undressing him. His blood pressure was 40 systolic and 0 diastolic. Pulse was feeble and irregular and therefore careful auscultation

of the heart was performed. Heart sounds were faint despite the shallowness of the chest and lack of subcutaneous fat. Definite fibrillation was not established.

Seven and one-half grains of caffeine sodium benzoate were given into the distended left external jugular because other veins were thoroughly collapsed. Five cubic centimeters of desoxycorticosterone acetate were injected into the left pectoralis major.

Meanwhile, the patient had been well wrapped in flannel and wool, leaving ports for the introduction of external heat with infra-red and chemical heat pads. The room temperature was elevated to 88° F.

In thirty minutes, blood pressure was 90 systolic and 40 diastolic. In five hours it was 105 systolic and 65 diastolic. There was no perceptible change in body temperature for three hours. Not until six hours had elapsed was it 94° F.—the lowest temperature which the thermometer recorded. At eight hours, it was 97° F.

Additional help in combating the lowered body temperature was sought enterically. Endogenous thermal energy responsible for the patient's survival up to the time of treatment must have been supplied from his liver glycogen and meager fat reserves because he had had nothing but two doughnuts and two shots of brandy in the past twenty-one hours. Stimulation from the intravenous caffeine had appeared beneficial. Further caffeine plus sugar and cream were given by mouth in the form of hot coffee. Later, he ate sweetened hot chocolate, buttered toast, and soft fried eggs. It is possible that he may have derived some early benefit from the food.

After eight hours he left the office. His subsequent care was in the hands of other physicians. Three days later, he stopped momentarily at the office during an automobile trip of several hundred miles. He was apparently fully recovered.

In any case of exposure to cold, numerous factors will play a part in determining the severity of the patient's condition and his probable response to adequate care. For the cold water immersion victim the following should be considered:

1. Water temperature and duration of immersion.
2. Wave and current motion. This will affect the rate at which layers of water (which have been warmed by heat loss from the body) move away to be replaced by colder water.
3. Air temperature; clouds; sunlight and shade; radiant energy; humidity.
4. Rate of air exchange (wind).
5. Amount and type of body clothing and its thermal conductivity or insulative value.
6. Percentage of body immersed; percentage of surface area wet.
7. Size and weight of patient.
8. "Normal" metabolic rate of patient.
9. Muscular activity while immersed.
10. Exhaustion or rest before immersion.
11. Diet (amount and type) before or during immersion.
12. Complicating factors of disease, wounds, burns, chronic ailments related to age or prior experiences (i. e., liver damage).
13. Complicating factors of the immersion experience such as aspiration or swallowing of fresh or salt water.

There is no doubt that much is still to be learned about the prevention and treatment of cold exposure syndromes. One of the most logical procedures would be experimental studies on human subjects. The most notorious example of such studies is the series of experiments run by a German physician at Dachau. What could have been ethical, productive research turned out to be worthless, debased, scandalous experimentation with the political goal of genocide.

The Dachau Experiments Sigmund Rascher, M. D. was a second lieutenant in the SS when his experiments began in August, 1942. He was also an officer of the Luftwaffe, but his real interest was

obviously in the SS. That his endeavors were interesting to the SS is borne out by his rise from second lieutenant to captain in less than a year from the submission of his first progress report. Rascher had ample material and was apparently well equipped. He used 280 to 300 test persons (TP) and he conducted 360 to 400 experiments. Some TP were repeatedly used. Bear in mind that selection of TP sometimes was made hundreds of miles away by a superior SS officer who decreed that all prisoners of a certain race or all prisoners guilty (or presumed guilty) of certain state crimes should be employed as TP. Thereupon, if TP survived numerous tests, they were sometimes transferred to another concentration camp where unrelated experiments were being conducted; or they might be exterminated by some others means.[3, p. 18-19]

In Rascher's series, there were 18 to 19 deaths. Some of these deaths were unintentional but some were deliberately planned so that he might observe the terminal state with cardiographic tracings, etc. The TP were immersed in water cooled by floating cakes of ice, from 36.5° to 53.5° F. Some TP were clothed, some naked. Various types and combinations of clothing were employed. There were arrangements for recording rectal and gastric temperatures electrically. Temperatures as low as 79.7° F. in the rectum and 79.5° F. in the stomach were observed.

He observed that decline in temperature from normal to 95° F. was slow. Thereafter the rate of decline increased. Temperature fall was accelerated in TP with the cervical region immersed. Edema of the brain was found at autospy in such cases. Cold protective clothing impeded the rate of fall in temperature and more than doubled the time of survival. Consciousness was impaired below 88° F. Cold narcosis was evident below 86° F. Danger of death existed anywhere below 86° F. At that temperature, arrhythmical heart action usually began. Sudden death from circulatory impairment, secondary to arrhythmia, was often seen around 82.5° F. He thought the increase in blood viscosity caused the pulse irregularity. He blamed respiratory irregularities on rigor of respiratory muscles from low temperatures. Tests on the use of strophanthin for relief of the circulatory plight gave no promising results. External heat application was found harmless and more beneficial than any other therapeutic measure. Immersion in hot water was found to be the most rapid and salutary method of external heat application.

After discontinuation of cold immersion, Rascher observed a continued temperature decline for usually fifteen minutes. The amount of further decline, and the duration of further decline, depended upon the method of rewarming employed. Hyperglycemia, which he observed regularly, was found to continue until rewarming had been achieved. His autopsies revealed intracranial hemorrhage and right-sided cardiac dilatation. Fatalities occurred only when the neck and base of the skull had been chilled. Death was inevitable (100 per cent of such cases) when body temperature dropped to 82.5° F. despite every attempted measure to conserve the life of the TP.

We absolutely cannot accept Rascher's results at face value. It is unnecessary to detail the reasons why his work is untrustworthy and therefore a loss from every viewpoint. Nevertheles we may examine it for possible clues, utilizing the background of more worthy investigation. He strongly recommended life jackets with floats so arranged as to keep the neck out of water. He suggested the incorporation of devices for electrical warming of the head and neck. Others have stated, "The insulating capacity of the cranium is probably not as great as is sometimes assumed."[5, p. 188] Rascher considered rewarming by total body immersion in hot water more efficacious than any other method. Some of his conclusions, there-

tore, are in agreement with ethical and more reliable investigators. This is true even though a number of his observations conflict with the findings of others. Let us hope that other dictatorships will not foster similar "research" in the name of military medicine.

Conclusions

1. The basic problem is hypothermia.

2. Conditions producing increased loss of body heat produce peripheral vasoconstriction. This may result in peripheral cold injury (trench foot, frostbite, immersion limb).

3. Severe or long continued loss of body heat will result in lowered body interior temperature (hypothermia) which may be irreversible unless treated by supplying adequate external heat via a hot bath, etc. plus the use of indicated drugs.

4. Peripheral cold injury is best treated by local aplication of cold until normal body temperature has been indubitably restored and peripheral vasodilatation achieved. Early recognition of cold injury is essential.

5. Peripheral cold injury is best prevented by measures designed to avoid exposure which threatens to lower the temperature of the body interior.

6. Acclimatization to cold is an essential part of military training as well as a safeguard for civilian sportsmen.

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Correlation Between in Vivo and in Vitro Activities of Antitubercular Compounds

Starting from the assumption that the minimal inhibiting concentration (MIC) of an antitubercular agent *in vitro* is the same as the MIC which must be reached in the blood of an animal to obtain minimal therapeutic effect, a relationship termed R was established for daily dosage. When R was equal to or more than 1 the drug was expected to be active *in vivo* and *in vitro*, but to be inactive when R was significantly less than 1. That is, unless the drug was tolerated in the diet at a level sufficiently to produce the blood level theoretically required, it was not expected to be active *in vivo* unless the activity in the blood was greater than that *in vitro*.

A series of 379 compounds which were active *in vitro* were studied in this relationship. However, there were as many drugs showing activity *in vivo* at low R values as there were at high R values. The presence of sheep serum increased the MIC's *in vitro* in about 69 per cent of the compounds tested in this way. But even with the adjustment for sheep serum inactivation the separation of active and inactive compounds *in vivo* on the basis of R values was not possible, according to Donovick, Rake, and Titus in *Ann. N. Y. Acad. Sci.* [53:50(1950)]

Lumbar Sympathectomy In Peripheral Vascular Diseases

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Lumbar sympathectomy, in the treatment of peripheral vascular diseases, has received considerable attention in recent years. The procedure does not remove pathology, cure the disease for which it is being done, nor halt progression of the disease process. By eliminating vasoconstrictive impulses to the peripheral vessels, it increases the blood flow to the extremity by way of the collateral vascular bed which usually is well developed because of the chronic progressive nature of peripheral vascular disorders, and also by way of those vessels or segments of vessels which have not yet been affected by the pathologic process. The purpose of sympathectomy is to relieve mild rest pain and claudication and to protect to some extent against gangrene and ulcer formation. As these symptoms and signs are essentially on an ischemic basis, the procedure is physiologically sound. Thrombo-angiitis obliterans (Buerger's disease) is the disease most favorably affected by sympathectomy, followed by arteriosclerosis obliterans. The procedure has also been used in cases of diabetic gangrene and chronic venous insufficiency with ulceration although the results have not been as satisfactory and are in dispute.

It is essential to good results that cases considered for sympathectomy be carefully selected. A good vasomotor response to preliminary lumbar sympathetic block is almost mandatory. Cases with far advanced disease, especially if complicated by gangrene or ulceration, are unsuitable. It should be remembered that patients with arteriosclerosis obliterans are generally in the older age group. These patients have a limited prognosis as to life and are increased surgical risks. These factors must not be overlooked in evaluation for case selection.

The following twelve case reports represent the lumbar sympathectomies done at Nassau Hospital during 1950. While the series is too small to be statistically significant, the results indicate that certain principles must be applied for good results to be obtained.

The following table summarizes the cases reported.

Case 1 165765 a 69-year-old white female was admitted on January 15, 1950 with arteriosclerosis obliterans. The patient had claudication in the left leg for a two-year period which had progressively gotten worse. More recently, pain at rest had developed.

Examination revealed a cold left leg with absence of popliteal and dorsalis pedis artery pulsations.

A left lumbar sympathectomy with removal of ganglia two, three and four was

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done. Postoperatively the patient had an uneventful course with return of arterial pulsations and increased warmth in the leg.

On five-month follow-up, it was found that the patient was able to walk without symptoms. For a few months following surgery she had incisional pain with marked hyperesthesia of the left abdomen and left lateral thigh which proved to be transitory.

Case II 166166 a 60-year-old colored male was admitted on January 27, 1950 with arteriosclerosis of a left thigh stump and a phantom limb. Left mid-thigh amputation had been done in 1945 following a crushing type injury complicated by osteomyelitis. He had had a phantom limb since the time of amputation and complained of coldness in the stump. Four operative procedures had been done elsewhere for relief of symptoms.

Examination revealed a cold left thigh stump bearing multiple old incisional scars, with tenderness on the medial aspect and along the amputation scar. A left paravertebral sympathetic block was done with alleviation of symptoms.

A left lumbar sympathectomy was done with excision of one ganglion (unnamed) and a section of the sympathetic chain. Postoperatively the patient had an uneventful course with increased warmth to the stump, absence of pain, tenderness, and sensation of phantom limb. He has remained well and asymptomatic since surgery.

Case III 167613 a 77-year-old white male was admitted on March 16, 1950 with arteriosclerosis obliterans and dry gangrene involving the second and third toes of the left foot. Pain was sufficiently severe to impair ambulation.

The left extremity was colder than the right and the dorsalis pedis artery pulsation was absent. The left foot showed dusky red discoloration on dependence and in addition to the gangrene already noted, marked trophic changes of the skin and nails were present. Oscillometric readings showed absence of pulsations in the left leg. Amputation was advised but refused by the patient at this time. A left paravertebral sympathetic block was done with increased warmth in the involved extremity.

A left lumbar sympathectomy was done with excision of the second ganglion and a short segment of the chain. Postoperatively the pain disappeared, the extremity was warm and the patient became ambulatory.

The patient was seen in follow-up clinic in April, May and June of 1950. During this time he remained asymptomatic and ambulatory and the gangrene, which had spread to involve the fourth and fifth toes, appeared to be undergoing mummification. In June the gangrene became wet and extremely malodorous. The

CASE	NUMBER	AGE	SEX	DISEASE	RESULT
1	165765	69	F	Arteriosclerosis obliterans	Excellent
2	166166	60	M	Arteriosclerosis obliterans of amputation stump with phantom limb	Excellent
3	167613	77	M	Arteriosclerosis obliterans with gangrene	Poor
4	169536	71	M	Arteriosclerosis obliterans	Expired
5	170219	60	F	Arteriosclerosis obliterans	Good
6	170298	80	F	Arteriosclerosis obliterans with gangrene	Expired
7	171613	63	M	Arteriosclerosis obliterans	Good
8	172035	52	M	Buerger's disease	Excellent
9	173448	22	M	Chronic venous insufficiency with ulceration	Poor
10	174970	41	F	Diabetic arteriosclerosis with gangrene	Expired
11	175979	42	M	Buerger's disease	Good
12	176444	72	F	Diabetic arteriosclerosis with gangrene	Poor

patient submitted to a mid-thigh amputation on the insistence of his family. His subsequent course was uneventful.

Case IV 169536 a 71-year-old white male was admitted on May 12, 1950 with chronic cholecystitis and cholelithiasis and arteriosclerosis obliterans. A cholecystostomy and cholelithotomy had been done 40 years ago and he had a right mid-thigh amputation for gangrene involving the extremity. His chief complaints on admission were directed to the gallbladder disease with secondary symptoms referable to the left leg. A cholecystostomy and lithotomy with drainage of an abscess was done without untoward effect and with relief of his primary symptoms.

He had pain at rest in the left leg for several years and stated that at the time of amputation of the right leg, bilateral amputation had been advised and refused.

Examination of the extremity revealed marked coldness and trophic changes of the skin and nails. The dorsalis pedis artery was not palpable and oscillometric readings showed absence of pulsations. A low spinal was given with objective increase in warmth in the extremity.

A left lumbar sympathectomy was done with excision of ganglia two and three. Several hours following surgery the patient developed severe pain, coldness, and a mottled apprearance of the extremity and rapidly passed into a state of shock. The changes noted in the left leg were later observed in the right stump. It was felt that the patient had a saddle embolus of the aorta, despite the fact that the heart rate was regular on clinical examination. Despite supportive therapy, his condition rapidly worsened and he expired with pulmonary edema on the evening of the first postoperative day. Autopsy consent could not be obtained.

Case V 170210 a 60-year-old white female was admitted on May 31, 1950 with arteriosclerosis obliterans. Claudication in the right calf and pain in the right foot had gotten progressively worse over a two-year period. Calf cramps at night were frequent.

Examination revealed a cold right lower extremity with absent popliteal and dorsalis pedis pulsations and dependent rubor.

A right lumbar sympathectomy with excision of ganglia three and four was done. Following surgery the extremity became warm and painless.

Follow-up at one month revealed marked decrease of symptoms with absence of nocturnal calf cramps. The right foot was now warmer than the left.

Case VI 170298 an 80-year-old white female was admitted on June 2, 1950 with arteriosclerosis obliterans and gangrene of the left foot. For three or four months she had had dry gangrene involving the left great toe and heel with constant severe pain.

Examination of the extremities revealed marked bilateral varicosities, the gangrene previously described, coldness bilaterally below knee level, and absence of popliteal and femoral pulsations on the left side. Bilateral dependent pedal rubor was noted.

Amputation was advised and refused. A spinal block was given with slight improvement in the extremity circulation for a few hours.

Pain was extreme requiring frequent doses of narcotics and the gangrene showed extension.

On the twenty-fifth hospital day, a left lumbar sympathectomy was done with excision of ganglia two and three. The patient withstood the procedure well but the course of her disease was unaffected. Wet gangrene of the right great toe developed and the patient showed progressive failure, expiring on the fourteenth postoperative day.

Case VII 171613 a 63-year-old white male was admitted on July 7, 1950 with arteriosclerosis obliterans. Intermittent claudication involving the left leg had been

present for three months.

Examination revealed the left leg to be cold. The popliteal and dorsalis pedis artery pulsations were absent bilaterally. No trophic or color changes were noted. Oscillometric readings revealed marked differences in the two legs with no pulsations below knee level on the left side.

A left lumber sympathectomy with excision of ganglia two and three was followed by increased warmth in the extremity.

On one-month follow-up, the claudication time was found to have increased slightly with decrease in the intensity of claudication pain.

Case VIII 172035 a 52-year-old white male was admitted on July 18, 1950 with Buerger's disease. Intermittent claudication in the left leg had gotten progressively worse over a four-year period until the patient was now unable to walk two blocks without pain.

Examination revealed absence of popliteal and dorsalis pedis artery pulsations bilaterally. Both extremities were cold. A left lumbar paravertebral sympathetic block was followed by increased warmth in the extremity.

A left lumbar sympathectomy with excision of ganglia two and three was followed by increased warmth and absence of claudication.

On follow-up the patient has remained asymptomatic.

Case IX 173448 a 22-year-old white male was admitted September 1, 1950 with chronic venous insufficiency of the right leg with multiple ulcerations. Onset of the present illness had been in 1942 when the patient developed a deep thrombophlebitis of the right leg with permanent residual swelling of the entire extremity. In 1944 ulceration occurred and until 1949 recurrent multiple ulceration about the ankle area continued. In October, 1949 a right-sided high-low saphenous ligation was done. In June 1950 fasciotomy was performed.

On admission in September 1950 examination revealed enlargement of the entire right leg with multiple incisional scars. Three ulcer areas were present; one above each malleolus and the third at the site of a previous operative incision, lying transversely on the upper anterior leg. The patient restricted ambulation considerably because of discomfort in the right leg.

After fourteen days of bed rest and boric acid soaks, right lumbar sympathectomy was done with excision of the second ganglion and a segment of the chain. On discharge on the ninth postoperative day the ulcers showed decrease in size but this was attributed to prolonged bed rest during hospitalization.

Follow-up three months later revealed no objective improvement of the extremity although the patient subjectively felt better and was relatively comfortable with increased activity.

Case X 174970 a 41-year-old white female was admitted on October 17, 1950 with diabetic arteriosclerotic gangrene of the right foot. A known severe diabetic, she had been treated by a podiatrist for a corn on the right fifth toe a few months prior to admission and subsequently developed discoloration in the treated area with recent gangrenous changes.

Examination revealed gangrene involving the entire toe with induration of the lateral portion of the forefoot. The dorsalis pedis artery was palpable. X-ray examination showed soft tissue swelling of the involved area with osteomyelitis of the proximal phalanx.

A sympathectomy was undertaken with a view of obtaining maximum circulation to permit lower level secondary amputation. One sympathetic ganglion (unnamed) and a segment of the chain was removed from the right side.

The patient expired suddenly and without warning on the second postoperative day. Autopsy consent was not obtained.

Case XI 175979 a 42-year-old white male

admitted November 17, 1950 with Buerger's disease. Four years ago he had sustained trauma to the right big toe. Ulceration on this toe ensued and coincidentally pain developed in the toe and foot and the extremity became cold and clammy. Claudication developed and became increasingly severe.

Examination revealed a superficial ulceration in the pulpy area of the right great toe from which a slight serosanguineous drainage could be expressed. The foot was cold and clammy. The femoral and posterior tibial artery pulsations were palpable.

A right lumbar sympathectomy was done with excision of the second and third ganglia and a segment of the sympathetic chain.

Postoperatively the patient was relieved of pain while in the hospital and the foot became warm.

On follow-up at one month, the ulceration had healed. The foot remained warm and dry and rest pain was absent. Claudication time had been increased.

Case XII 176444 a 72-year-old white female was admitted December 1, 1950 with diabetic arteriosclerotic gangrene of the right foot. Three years ago she had had mid-thigh amputation of the left leg because of this disease. Two weeks prior to this admission the patient had noticed color changes in the right fifth toe.

Examination revealed gangrene of the right fifth toe with early gangrene of the lateral aspect of the right fourth toe with slight involvement of the skin at the bases of these two toes. The foot was cyanotic but warm. The dorsalis pedis, posterior tibial and popliteal vessel pulsations were not palpable.

The patient was admitted for sympathectomy in the hope of allowing minimal low secondary amputation.

X-ray examination of the foot showed no evidence of osteomyelitis but showed evidence of arteriosclerosis.

A right lumbar sympathectomy was done with excision of ganglia two, three and four. In addition the fourth and fifth toes with the metatarsal heads were amputated.

Postoperatively the middle toe developed gangrenous changes. The patient was discharged on the eleventh postoperative day. She was subsequently admitted to another hospital and a forefoot amputation done. Subsequent to this procedure, further gangrenous changes occurred.

Summary

Twelve cases of lumbar sympathectomy are reported.

Two cases of Buerger's disease represent the group with the most favorable results (cases 8 and 11). On short-term follow-up, one case (case 8) had an excellent result while the second patient (case 11) had a good result with amelioration of symptoms.

Seven cases of arteriosclerosis obliterans are presented (cases 1, 2, 3, 4, 5, 6, and 7). Two of these cases (cases 3 and 6) had concomitant gangrene. Both had unfavorable results, one expiring as a natural outcome of her systemic cardiovascular disease and the other coming to secondary amputation.

One patient in this category (case 2) was unusual in that he had an amputation stump with phantom limb. This case had an excellent result with alleviation of all symptoms.

One case of uncomplicated arteriosclerosis obliterans resulted in death due to peripheral embolism (case 4). Three cases of uncomplicated arteriosclerosis obliterans had excellent (case 1) or good results (cases 5 and 7).

One case of chronic venous insufficiency with ulceration (case 9) with saphenous ligation and fasciotomy preceding sympathectomy, showed no objective improvement and is considered a poor result. Subjectively the patient had symptomatic improvement.

Two cases of diabetic arteriosclerotic

gangrene (cases 10 and 12) are recorded. Both are considered poor results, one patient expiring suddenly and the second coming to subsequent amputation.

Comment

1—The physiological basis for lumbar sympathectomy in peripheral vascular diseases is briefly presented.

2—Twelve cases are presented which encompass the four chief disease processes for which sympathectomy has been used.

3—The mortality rate of 25 per cent in this small series is prohibitively high. As the surgical procedure of sympathectomy is relatively innocuous, this mortality rate is undoubtedly a reflection on case selection. The average age of the patients in this group is 59 and two of the three deaths were in patients over 70 years of age.

4—Analysis of this small series would indicate that careful evaluation for case selection is essential to good results. The procedure is probably used more frequently than indicated.

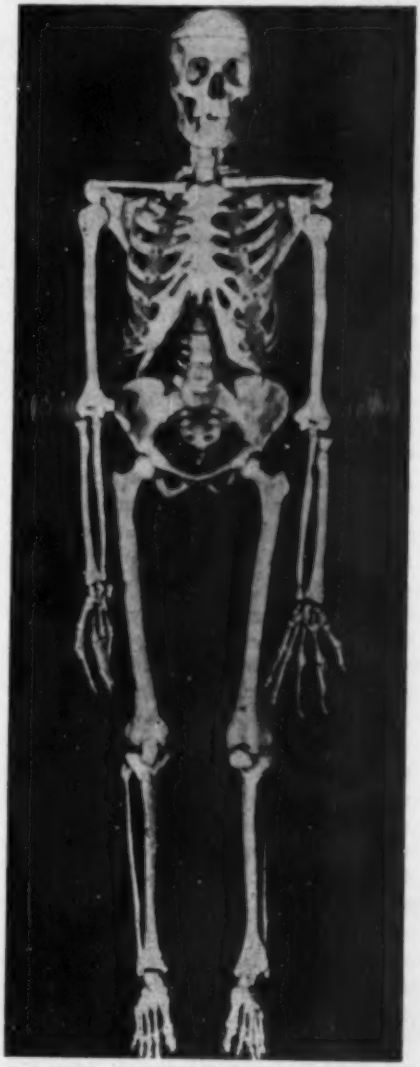
Professional Building, Hempstead, N. Y.

1951 British Industries Fair: Plastic Skeleton Takes A Bow

Coinciding with Festival Year, the 1951 British Industries Fair promises to break all records, both for attendance and the number of exhibits. Many new gadgets and ingenious examples of British workmanship will be on sale to the world. Industries are making a major effort for the occasion and the textile industry is preparing the finest assembly of materials ever shown.

As in former years, engineering and hardware will be accommodated in Birmingham and other industries in London. While the Fair is on (April 30-May 11) the opening ceremonies of the Festival of Britain will take place.

A sculptured plastic skeleton specially designed for instructional use in hospitals and medical institutions for the medical profession will be shown at this year's British Industries Fair by the manufacturers, Educational and Scientific Plastics Ltd., 392a, London Road, West Croydon.



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The Inevitable Colostomy

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The perfections of modern surgery have made possible the avoidance of a colostomy in certain instances of radical resection of the colon and rectosigmoid. Often primary anastomosis is not possible for one or more reasons. Situations of this type result inevitably in a permanent colostomy. It is with this group of persons that our interest is concerned at present.

When a permanent colostomy is performed, the surgeon should remember that the patient may never be operated upon again. More important to recall is the fact that the colostomy patient must live with this device until death. For these reasons certain cardinal factors should be emphasized.

Psychic Factors A surgeon may perform a procedure which, being necessary for the preservation of life, may cause psychic trauma of sufficient severity to alter the social pattern of the individual concerned. The day has passed when the surgeon's duty terminates in the operating room. This is especially true in the management of patients upon whom a colostomy has been performed for some pathologic condition of the lower colon or rectum.

To awaken from an operation and find oneself having bowel movements through an opening on the abdomen is valid cause for consternation. Confusion reigns when it is realized that the defecation reflex has been disturbed or is absent. A normal bowel habit has a very salubrious effect on patients and its enjoyment is a normal expression of a healthful physiology of the gastro-intestinal tract.

For the above reason the sudden loss of a frequently used physiologic process must of necessity give rise to certain mental reflections. Unfortunately patients of this type rarely fall under the care of psychiatrists for guidance. Remaining a surgical problem these patients continue to be seen and treated by the surgeon. If the surgeon is shortsighted he will see only a part of his patient. Simple friendly conversations will bring to light the mental trauma produced when a colostomy is performed. Discovery of this trauma will enable the surgeon to adopt measures for combatting this disquietude. By so doing he will assuage the grief associated with the performance of a colostomy.

Rarely is a patient informed preoperatively that he is to have a colostomy. He becomes aware of this situation after operation. During the immediate postoperative period, there is no unusual psychic trauma but only that associated with any operation. On the third or fourth postoperative day the patient becomes concerned with the fact that he has had no bowel movement. He is somewhat alarmed and tells the doctors and nurses that his bowels have not moved. At about this time his colostomy begins to function.

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Soon he is confronted with the awful awakening that feces are evacuated through the abdominal wall.

At this point many thoughts enter the patient's mind and much distress fills his calvarium. Many questions arise and may become most distressing to the individual concerned. These questions find external expression in disinterest in his own physical health. An apathy toward getting well supersedes the preoperative anxiety for correction of his illness. As the questions arise they must be discussed intelligently with the patient. Experience has taught the surgeon that this psychological problem exists. Often the doctor has to approach the subject and bring to light that which the patient is timid to discuss. It is preferable for the doctor to commence the conversation which will bring to light the psychic trauma he has unwittingly produced by his surgical procedure. The surgeon who walks into the postoperative room to examine the wound or to change the dressing, and then walks out, is remiss in his duty to the colostomy patient. The surgeon who engages his colostomy patient in conversation will be rewarded by gaining new knowledge of what takes place in the mind of a colostomy patient. (1)

Operative Considerations At the time of the operation the performance of a satisfactory colostomy is most essential. A colostomy should be considered from the patient's viewpoint. A most distressing situation is to have the colostomy retract. Another is to give a patient an unsatisfactory stoma.

The prevention of complications and postoperative distress can be assured at the time of operation. Whenever possible the colostomy should be implanted in the lower angle of the abdominal wound since this portion of the abdominal wall is more movable and does not interfere with peristaltic movements. Peristaltic "tugging" of the bowel, when a colostomy is in the lower angle, allows for more facile movement and resiliency.

A colostomy should not be sutured to the skin or wound margins because sutures may pull through and produce fistulae. Therefore sutures employed for anchoring the colostomy should be inserted with great care. When a colostomy is finally placed, its position should be such that no fossa, cul-de-sac, or raw surface is present which may be the site of a future obstruction. Small bowel obstruction may result if a loop of small intestine becomes adherent or incarcerated in the vicinity of the colostomy.

Troublesome complications are retraction of a colostomy or a short colostomy. In order to prevent this situation the stoma should be at least two inches above the skin at the time of operation. This will result in a satisfactory colostomy and will also allow for any bowel necrosis at the cut surface due to vascular embarrassment. To further prevent retraction a clamp is permitted to remain across the colostomy stoma and dressings applied beneath the clamp in order to support it in position.

Immediate Postoperative Care In the management of colostomy patients each of us has his own methods. Often an exchange of ideas improves our methods. It has been our method to release the clamp across the colostomy opening 36 hours after operation. A catheter is placed in the stoma and the clamp reapplied half way across the stoma. On the 4th postoperative day all the dressings are changed. If an abdominoperineal resection has been performed the perineal drain is removed. A saline cathartic such as magnesium sulfate is administered on the 5th postoperative day. The retention sutures are removed on the 13th or 14th postoperative day. On the 7th postoperative day colostomy irrigation is instituted. On this day any retention catheter in the bladder is removed. If an abdominoperineal resection has been performed, the perineal wound is irrigated with a diluted

iodine solution, which has been found to be most efficacious.

Instructions Following Colostomy As soon as it is possible the patient should have an explanation of the colostomy. The surgeon fulfills his duty incompletely unless he assists the patient to adapt himself to this alteration in his physiologic way of life. A patient's rate of adaptability is greatly accelerated by a few simple considerations which are extremely important to him.

An instruction sheet is given to the patient which explains many of the problems which arise from the patient's point of view. Among the topics explained are:

1. The purpose of the colostomy.
2. Colostomy diet.
3. Equipment necessary, and method of irrigating a colostomy.
4. The hygienic care of a colostomy.

A problem that must be discussed with each patient individually is that of pads and belts. Many patients have discarded the old rubber colostomy bags. There seems to be a preference for the aluminum dome type of appliance. After each movement the absorbent pad beneath the dome is disposed of and a fresh pad is placed in the dome. The dome is held about the abdomen by means of belts which are comfortable. The dome itself is form-fitted and not conspicuous.

Recently an appliance has been invented which employs a rubber tube and ballon inside the colostomy opening. This acts as a dam against the fecal stream. Appliances of this type irritate the mucosal surface of the colostomy and are a source of bleeding from the stoma.

Care of the Skin In the care of patients with a colostomy a most distressing problem arises in the prevention and treatment of skin denudation. This denudation is most uncomfortable for the patient and very often is more disconcerting to the surgeon than any other delayed postoperative complication.

Study of this problem has led to the belief that the fundamental difficulty resides in the fact that the intestinal contents are alkaline and the skin is normally acid in reaction. This constant disparity in hydrogen-ion concentration results in a persistent antagonism between acid and base radicals, hence the skin denudation and excoriation around a colostomy or ileostomy.

The chemical composition of the intestinal secretions changes in their progressive course from the jejunum to the colon. However, all the secretions are isotonic with serum and have sodium as their chief basic ion. Jejunal secretion is slightly acid, its chief radical being chloride. However, in the bowel the secretion becomes increasingly more alkaline with bicarbonate gradually replacing chloride as the predominating radical.

With this knowledge as a background serious injury to the skin is understandable. Alkaline intestinal contents from an ileostomy or colostomy continually bathe the skin which is normally acid in reaction. This constant irritation produces the skin denudation and excoriation.

In order to correct this fundamental disturbance either the intestinal contents should be made acid or the skin changed to alkaline. Since the hydrogen—ion concentration of the skin cannot be altered, the intestinal contents must be made innocuous to the skin. This theoretically could perhaps be accomplished by changing the intestinal secretions during their physiologic activity in the gastro-intestinal tract: or the intestinal contents must be prevented from irritating the skin about the colostomy. Since the former procedure cannot be accomplished without seriously disturbing the acid-base harmony of the body, the latter course must be pursued. With this objective in view a method is available which satisfies this necessity.

The care of the skin begins at the operating table. Prior to making the operative incision no alkaline antiseptic should

be used. The reason for this is that alkaline solutions remove keratin, which is the first protective skin layer. After the surgical procedure the skin about the stoma is painted with one percent salicylic acid solution in compound tincture of benzoin. The tincture of benzoin forms a protective film for the skin. The salicylic acid is a keratoplastic which stimulates epithelial growth, thus aiding in the formation of keratin.

When the colostomy has begun to function, the area is mechanically cleansed with one percent solution of sodium hexametaphosphate, a buffering solution which neutralizes the alkaline intestinal excretions. This same solution has been instilled in colostomy orifices without unusual effects. When the skin has been thus cleansed, it is exposed to the air to dry. Evaporation of the moisture may be accelerated by applying the heat of an ordinary lamp to the exposed area. Following this treatment the skin is painted with tincture of benzoin. Each application of the tincture increases the thickness of the protective film, thus enhancing the efficacy of the film layer. This procedure is followed whenever the colostomy dressing is changed. In those cases in which skin denudation has already occurred, moist applications of one per cent sodium hexametaphosphate are used. As improvement becomes evident, the tincture of benzoin is applied; and the previously described method is followed thereafter. This procedure of skin care is not difficult to follow. After the first and second dressings nurses perform the task without complaint. This method has been employed in many neglected colostomy cases with satisfactory results. However, those patients who have been followed from the time of their operation are the most satisfactory since they are kept free from all distressing skin denudation and excoriation. This is a potent factor in assisting the colostomy patients to adjust themselves to this alteration in their normal physiology.

Summary

1. Consideration is given to those patients who must have a permanent colostomy.

2. Thought is given to the psychic aspect of the patient following a colostomy.

3. Certain operative factors in the prevention of postoperative complications are discussed.

4. Immediate postoperative care and instructions to the patient are considered.

5. Skin care following a colostomy is discussed.

References

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Wyeth Plans Another "Tele-Clinic"

Plans for the production of a new "Tele-Clinic," motion picture reports on medical meetings of national significance to the medical profession, were announced recently by Wyeth Incorporated, sponsors of the "Tele-Clinic" program.

In April Wyeth, in cooperation with the American College of Physicians, will photograph the annual meeting of that medical body in St. Louis.

The first "Tele-Clinic" production covering the Fourth General Assembly of the World Medical Association in New York last October has "met with great success" according to Mr. H. S. Howard, president of Wyeth Incorporated.

Fifty prints of the "Tele-Clinic" on the World Medical Association are now in circulation throughout the country. Over 500 showings of the film have been made, and more than 15,000 doctors, nurses and other medical people have seen the film since it was first released early in December.

Cerebral Palsy

The Problem of Dental Care In This Condition And a Method of Handling The Situation

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Dental care for many of the cerebral palsied has always been a problem to the dentist, the parent, and the child. Approximately 50% of all cases require a general anesthetic for ordinary dental care. At the Diagnostic and Treatment Center for the Cerebral Palsied in Hempstead, N. Y., we have evolved a method applicable to those children that require general anesthesia without hospitalization.

The eruption of teeth of the cerebral palsied child is like that of other children. The development of the oral structures has been found to be similar to that found in the "normal" child. Because of the difficulties encountered with a cerebral palsied child, dental hygiene is poor or there is none at all. Therefore, these children need more dental care than "normal" children.

The problem to the dentist is that of being able to do his work in a mouth free from interfering tongue motions, sudden closing of the jaws, excessive salivation, lack of ability to expectorate and, finally, free from the interference caused by involuntary motions of the facial muscles (athetosis). The problem to the parent is that mainly of dental hygiene. Many of the palsied do not know when their jaws may close involuntarily (athetosis). A sudden loud noise could produce the same thing (spasticity). For the same reasons, the care of these children's teeth is most difficult. They cannot be cleaned properly.

In addition, many of the children cannot speak, and consequently it is very difficult to tell when the child has a toothache and its location. Some children have not had sufficient experience to stabilize emotional responses and consequently they frequently overreact to situations. It is desirable to avoid any psychic trauma as it may result in abnormalities of emotional and personality development. The practice of evasive lies and promises of rewards for good behavior is to be condemned as it only breaks down the patient's confidence in the doctor and parents.

Other problems exist, such as seizures. Fifty per cent of these children have had seizures at one time or another. The use of dilantin with its effect causing overgrowth of the gums also presents a dental problem.

Dental treatment, like medical treatment, must be directed with a basic knowledge of the five types of cerebral palsy (Spasticity, Ataxia, Athetosis, Tre-

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mor and Rigidity). For instance, the dentist must know whether or not he is dealing with spasticity or involuntary motion. Upon this alone may rest the decision whether or not to attempt dental care with or without a general anesthetic. The type of cerebral palsy will also have a bearing on the kind of premedication used; especially in the postencephalitic athetoids, it is wise to avoid too much depressant effect upon cells already suffering from a deficiency of oxygen.

Uncomplicated ataxic and tremor types should not present dental problems because of their handicaps. Therefore, the problems rest mainly with the spastics, athetoids and rigidities.

The advancement in dentistry and medicine have been correlated with progress in anesthesiology. Our concern is for the child who because of his motor disability is not adaptable to usual care. The problem in successfully managing this type of patient is to utilize a technique of anesthesia and procedure which will permit the doctor to operate carefully and successfully in the mouth.

The prerequisites for a set-up for this

type of procedure need not be too intricate but certainly should be adequate to meet all the requirements of good technique. Every patient must have complete medical clearance as to ability to withstand the anesthesia. Consultation with the family physician is a necessity so that abnormalities or problems can be handled. The customary anesthetic records are made. Judicious use of sedatives, hypnotics, and analgesic drugs tends to reduce the amount of anesthetic agent which is required and thereby increases the margin of safety. Hypnotics allay apprehension and concern and in addition tend to prevent convulsions, occasionally seen under general anesthesia. Postoperatively, they tend to lessen recurrence of seizures previously under control. Atropine or scopolamine are used for their drying effect on the upper respiratory tract and the encountered increase of mucoid secretions.

As in the usual administration of anesthetics nothing should be taken by mouth for at least six hours before the procedure. An attempt to control starvation acidosis is best handled by giving some glucose derivative or lactose grains either with premedication or a few hours prior to induction of anesthesia. It is important to prevent acidosis as these child-

ren also have difficulty in swallowing, and thus their postoperative fluids and diet are difficult to administer and thereby increase the tendency toward acidosis.

The minimum staff involved should consist of an anesthetist, a graduate nurse, and operator whose duties can be independently functional. The dental chair is converted into an operating table by strapping a plywood board of correct size to the flattened horizontal chair. The leather cushions are placed on top and covered with a plastic sheet. The advantage of this combination is that the operating table so arranged can be raised or lowered or tilted into any required positions, and, in addition, can be reconverted back to a dental chair. See photographs Nos. 1 and 2 which show necessary set up.

The patients come to the office, having received the premedication before scheduled appointment.

Induction in most patients is with nitrous oxide and oxygen to render the patient unconscious. This is accomplished with the face mask just off the patient's face, allowing the gases to flow over the nose and mouth and gradually as the patient goes into analgesia to apply the mask more securely and firmly. As soon as the patient shows signs of unconsciousness and approaching third stage of anesthesia, the nitrous oxide (80-20) mixture is supplemented with Vinethene. When the signs of mid-1st plane stage anesthesia are reached, the Vinethene is shut off and ether started by drip into the rebreathing cannister and bag. When the patient is ready for the procedure to be started, the patient's mouth is opened and a mouth prop is placed between the teeth. The mouth packing is placed as a curtain from the buccal sulcus of one side across the posterior aspect of the tongue and palate, to the buccal sulcus of opposite side. Using a closed system, with N_2O shut off, a flow of 600-800 cc. oxygen is instituted. An ether drip cup attached

to the soda-lime cannister is used for giving ether when the requirement presents itself.

The operative dentistry is performed first, preparing all the cavities on one side of the mouth, placing the fillings or restorations in and then treating the opposite side in similar fashion. The nurse during this time is using the aspirator tip to suck up all remnants of tooth dust, zinc oxide and eugenol paste, cement, amalgam, or porcelain excess particles, which would otherwise fall onto the gauze packing or tissues of the mouth. This prevents any foreign materials from entering the pharynx with possible aspiration, after the gauze packing is removed. The nurse also retracts the tissues of the mouth and uses the air tip to cool and clean the tooth being treated. See photograph No. 3 showing treatment being performed.

After the operative dentistry has been completed and the gauze packing replaced, then the required surgery such as extractions, cyst removals, impactions, etc., is performed. With careful packing and continuous adequate suction, blood and other débris is kept to a minimum. As a precaution the hypopharynx and larynx are

examined with a laryngoscope in order to suction out any materials which may have slipped past the oral gauze packing.

After the procedures are completed the patient is placed in the recovery room and left with a nurse to observe and care for the needs of the patient. The mother's presence is requested to satisfy the emotional needs of her child.

A procedure for the dental care of a group of cerebral palsied children has been outlined. Just as in "normal" children, what will apply to one child may not apply to another though similarly handicapped. This procedure has the advantage of office treatment rather than hospitalization. Thus, good dental care can be brought to some children who otherwise might not be able to have it. In our series there have been no untoward reactions.

57 Montague Street.

ACTH and Colchicine in the Treatment of Acute Gouty Arthritis

ACTH, either in aqueous solution or as a long acting preparation absorbed on colloidal alıminum phosphate, was given parenterally in doses of 50 mg. repeated at 6 hour intervals until a definite (75 per cent) or a maximum (90 per cent) improvement in articular symptoms was observed. Colchicine was also given concurrently in a dose of 0.65 mg. four times a day. The colchicine was continued after ACTH was withdrawn until residual joint soreness had disappeared and was then continued for an additional 2 weeks, with temporary interruption when gastric intolerance developed.

Wolfson *et al* stated, in *J. Michigan Med. Soc.* [*49*:1058(Sept. 1950)], that the attacks of acute gouty arthritis were terminated in 38 patients, usually in less than 24 hours. Twenty-one attacks in patients who had previously been treated with colchicine unsuccessfully required 120 mg. of ACTH as compared with 70 mg. in 17 attacks not previously treated with colchicine. A single dose of 100 mg. of ACTH absorbed on aluminum phosphate, with colchicine given on the above schedule, terminated 5 attacks in patients not previously colchicinized and in 7 patients previously unsuccessfully treated with colchicine. An additional patient in the latter group required a second dose of ACTH.

The authors suggested the use of ACTH as a prophylactic to support the impaired mechanism for mobilizing resistance to stress which is characteristic of patients with gout.

Penicillin Vaginal Suppositories

Cocoa butter suppositories containing 100,000 units of crystalline potassium penicillin G were used by Turner, according to his report in *Am. J. Obst. Gynecol.* [*60*:806(Oct. 1950)], to reduce the morbidity following vaginal hysterectomy. The suppositories were inserted intravaginally from 12 to 14 hours prior to operation in 100 consecutive, nonselected hysterectomies. Only seven patients experienced postoperative febrile morbidity as compared with 37.5 per cent in 56 patients and 34.8 per cent in another group of 210 patients receiving the same preoperative preparation, excluding the penicillin suppositories. Thus the author concluded that penicillin vaginal suppositories are of value in reducing morbidity when employed as an adjunct in preoperative preparation for vaginal hysterectomy.

Terramycin Therapy In Thalassemia

The Response of a Patient With Cooley's Anemia To Sustained Small Doses of Terramycin Base

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Cooley's anemia or thalassemia is classified by Vaughan among the dyshemopoietic, erythroblastic anemias.[1] It is seen only in childhood, a fact which has found explanation in survival failure, though undoubtedly numerous cases which go unrecognized in early life and are thereby spared the ordeal of indiscriminate transfusion become the acquired or the familial "hemolytic" anemia patients of adult life. Hemopoietic marrow and peripheral blood pictures are similar in these two arbitrarily separated forms and it has been assumed that in Cooley's[2] descriptive variety, as in all other erythroblastoses, there is hurried and consequently disorganized erythropoiesis to meet the demands of an accelerated hemoclasis.

A different concept, that of erythroblastic arrest and packing of the marrow with undelivered forms, became a corollary of the theorem of hypersplenism so thoroughly elaborated by Doan[3] and his co-workers, and many apparently trustworthy exhibits in evidence for the original thesis, that the erythroblastic anemias resulted from the inability of a frantically overactive marrow to keep up the pace, are now being discounted. For instance reticulocytes, once regarded as being young normal erythrocytes fresh from their completion of a normal maturation sequence in the marrow, are more probably transition stages in the maturation of erythroblasts into normoblasts; they may signify no more than the aberrant delivery of macrocytes from erythroblasts which have chosen to extrude their nuclei at the latter stage rather than to undergo division into normoblasts. Likewise, increase in bile pigment precursors can no longer be considered designative of an enhanced "hemolysis" or "hemoclasis" since the fact of extracellular porphyrin synthesis was uncovered. It does appear, in the sense that the life span of the megalocyte (a cell arising by nucleus extrusion from the megaloblast) or the macrocyte (arising similarly from the erythroblast) is less than that of the normocyte (arising from the normoblast), that relatively speaking, an "accelerated" hemolysis is occurring in megaloblastic and erythroblastic anemias. But that the main difficulty with maintaining an adequate peripheral erythrocyte count in these cases

lies in the inhibited marrow output is deduced from various considerations and seems to have been morphologically demonstrated, for certain of the erythroblastoses at least, by Dameshek and Bloom.[4]

Barnard[5] and his co-workers have used morphologic studies combined with those of variation in the blood acetylesterase (cholinesterase) to arrive at the conclusion that erythroblastic arrest anemias (not excluding erythroblastosis fetalis) comprise a major class of myelosuppressive dyscrasias which include perhaps the bulk of refractory anemias encountered in medical practice. While not discounting the role of a splenic inhibitor in one family of these anemias of variegated manifestations, the origin of the inhibitor in most instances is attributed to another group of the hepatic portal affluents, those arising from the intestinal tract. By inhibiting the growth of proteolytic bacteria within this tract, or coincidental to such inhibition, a wide variety of ordinarily refractory anemias: those of infection, glomerulonephritis, intensive radiation and some malignancies are successfully abated; even the anemia of acute leukemic patients may be arrested or its trend reversed. For the suppression of the intestinal coli-aerogenes organisms which are belived to be the proteolytic organisms concerned in the elaboration of a cholinesterase-inhibiting material (this finding its way through an intestinal wall of heightened permeability), the writer and his colleagues have been using terramycin hydrochloride in small, sustained doses given along with a copious milk allotment. The stool usually becomes practically odorless within 12 to 48 hours and remains so indefinitely, the emergence of terramycin-resistant coli-aerogenes strains presumably being inhibited by the lactobacillus flora implantation that results from the milk ingestion. Accompanying this "putrefaction" suppression there is usually a marked improvement in the general health and well-being of the treated subject, and specifically a complete submergence of "atopic" or allergic phenomena where these have existed.

Some time ago, the base of terramycin became available and was used in a patient with Cooley's anemia. A detailed report of the results is rendered:

Case Report J. M., a 10-year-old male of homozygous Italian extraction had shown growth retardation and craniotabes since the age of 3. He had been under the care of a large university hospital in this area where the diagnosis was made on the basis of suggestive mongoloid facies, osteoporosis and an erythroblastic blood picture. According to the mother the case was designated as a "mild" one and apparently transfusions were not administered but instead the usual mode of blanket "hematinic therapy" consisting of liver concentrates and inorganic iron salts orally. About one year ago the child was released to the care of the family physician and hematologic progress (or rather the lack of it) was followed by laboratory facilities afforded in a hospital in the vicinity of his home. During this time the patient showed only slight physical retardation and attended school, though this attendance was liberally punctuated by absences because of periodic bouts of low-grade fever, upper respiratory infection (which seemed to be usually extant in his case) and "glands". The appetite was poor, there were complaints of fatigability and some withdrawal phenomena exemplified by alternate moods of reticence with shyness contrasting with anxiety. The erythrocyte studies made at approximately bimonthly intervals reflect a monotony in keeping with the stationary condition of the patient; his only medication at home consisted in a modification of the liver-iron-vitamin concentrate employed all along.

Physical examination on 8 January showed an alert and intelligent child who was not acutely ill but who had been out of school since before the prior Christmas recess because of a daily fluctuating

TABLE I

EFFECT OF LOW-LEVEL TERRAMYCIN DOSAGE ON HEMATOLOGIC STATUS OF A SUBJECT WITH THALASSEMIA

Date	RBC millions	Hb dm/M	Hematocrit (hundredths)	Granulocytes	Therapy
4 Apr. 50	3.69	10.2	.31	2,900	iron-liver
11 Aug.	3.92	10.8	.31		"
17 Oct.	3.83	10.5	.29	4,300	"
4 Dec.	3.90	10.1	.30	2,700	"
8 Jan.	3.97	10.5	.31	2,400	Began Terramycin
15 Jan.	4.22	12.1	.35	3,600	Terramycin
23 Jan.	4.67	13.8	.41	4,000	"

temperature of 99.6 to 101.2 (oral) and a chronic "cold". There was a moderate residual craniotabes and costal rosary. The facies were adenoid and there was much punctate lymphoid tissue on the posterior pharynx. Neither splenomegaly nor any abnormality of the cardiovascular or lower respiratory systems could be elicited and except for palpable superficial and deep cervical, as well as epitrochlear and inguinal glands, the remainder of the examination was negative. The blood serologic test "for syphilis" had repeatedly been reported as negative so it was not repeated; blood count on this date is recorded in sequence with the others in Table I.

On the date of examination, the child was started on a daily intake of 180 milligrams of terramycin base given in three divided daily doses with milk at each meal. Results of the blood counts secured one and two weeks after the inception of this mode of therapy will also be found in Table I (end of case report).

While this table indicates a hemoglobin and erythrocyte level not previously attained during the long period of observation, during the first week of therapy and an apparently complete normalization, hematologically, by the end of the second week, it is incapable of conveying the sharp response made by the patient within a few days after the terramycin dietary supplementation* was started. The previous sallowness and pallor was replaced by a ruddy skin color, physical activity increased and the appetite became and has remained voracious in striking contrast to the finickiness which had been a constant trial to the tempers and patience of his parents. He returned to school without a "cold" two days after beginning terramycin and has remained in school since. As in other cases definitively or arbitrarily placed in the atopic category, it is planned to continue the terramycin supplementation indefinitely.

Thalassemia, in contradistinction to another form of erythroblastosis occurring in early life, that described by Lederer and named after him,[7] has never been seriously associated with an "infective" component and the point is raised to illustrate the possible fallacy of the popular association between response to antibiotic therapy and the necessarily infectious nature of the responsive condition. The presumption has been inveighed against on other grounds[8] but now it may be stated more definitely that the association cannot inevitably exist. Terramycin, in proportionate doses to that given the present patient, has pronounced metabolic effects on domesticated poultry, hogs and fur-bearing animals and is now widely used as a growth-promoting feed supplement in animal husbandry. Unless we take the position that prior to such use, all of our livestock had been "infected" in the

*The medication is referred to in these terms because there is some reason for believing that the low-level, oral antibiotic dosing employed in this case operates by a similar or identical mechanism to that which is responsible for the enhanced growth and livability of some domesticated animals for whom terramycin and certain other streptomyces-derived antibiotics have been found to be an "animal protein" or "growth" factor.[9]

classic sense we must agree that indications for antibiotic administration will extend beyond the treatment of the specifically infectious diseases. Preliminary surveys have already indicated that this extension may become so wide that the presently stressed clinical applications of antibiotic therapy will pale into insignificance.[9]

In spite of unequivocal response of a case of thalassemia to an agent now solely utilized (in humans) for the elimination of "infective" components, no evidence of the latter appeared from the necropsy observation of Whipple and Bradford[9] on two patients with Cooley's anemia. An interesting incidental observation made during their elaborate examinations is of particular import; the suprarenals were "definitely smaller than normal". In this connection it is of interest that aquired "hemolytic" anemia (another erythroblastotic variety) has responded to adrenocorticotherapy[10] and that sustained low level streptomyces antibiotic administration has a variety of pronounced adrenocorticomimetic effects[11].

Summary

A patient with Cooley's anemia made a favorable general and hematologic response shortly after inception of small doses of terramycin base used as a dietary supplement. The response was similar to that seen from this mode of therapy in other varieties of erythroblastic arrest anemias.

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Life Span Lengthened

American boys entering employment at age 18 have 66 chances in 100 of living to the retirement age of 65. For their grandfathers who started work around the turn of the century the chances of attaining age 65 were only 51 in 100.

During the first half of the 20th century the expectation of life at birth in the United States has increased from 49 to 68 years.

The outlook today for years of life after the age of retirement is more favorable than is generally realized, with the chances about 58 in 100 that men at age 65 will live at least 10 years longer.

Likelihood that a man will survive from his 23rd to his 52nd birthday is about 88 chances in 100, while at the turn of the century the chances were only 74 in 100.

Chances of survival for women are substantially more favorable than for men throughout life. At present a woman at age 23, the average age at which the first child is born, has 94 chances in 100 of living to her 49th birthday to witness the marriage of her youngest child; in 1900 the figure was 80 in 100.

"It is particularly fortunate that the mortality among young women is very low," the statisticians comment, "because many of them carry the responsibility of nurturing a young child. Currently about 1 in every 2 couples has a child within two years of marriage."

Keloids and Skin Papillomas

Their Etiology and Injection Treatment

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The purpose of this communication is to present an original view on the etiology and the treatment of keloids and skin papillomas. During the course of our series of studies, papers have been read at the New Orleans meeting (Dec. 3, 1943) and the Dallas meeting (Feb. 2, 1945) of the Southern Section of this Federation, and also before the Eastern Section which took place in Philadelphia (Dec. 8, 1945).

Unfortunately, the etiology of keloids leaves much to be explained. According to Christopher[1], the factors which produce hypertrophic scars and keloids are not fully understood, but Becker and Obermayer[2] believe that a definite predisposition to their formation must be assumed. There is evidence also which points to a familiar tendency in this disorder. Garb and Stone[3] postulate a hormonal disturbance, the nature of which is unknown. Geschickter and Lewis[4] think that hereditary and congenital predispositions are definite factors in keloidal growths. Calcium metabolism and a localized endocrine disturbance may be responsible. Mason[5] thinks that trauma is always the precipitating factor in the production of keloids. He feels there is a certain "fibroblastic diathesis" which varies in intensity among races and individuals. Filips[6] thinks that the underlying cause of keloid formation is the hypersensitivity of the fibroblast and the vascular endothelial cells to any agent having the power to mobilize those elements in the protein of these cells which induce them to proliferate.

It is fairly well recognized that a keloid is one of the end results of trauma to the integument. Trauma, of one type or another, may produce hemorrhage through diapedesis or rhexis. We have shown that the presence of inspissated blood in the integument (and in other tissues as well) apparently attracts fibroblasts which begin to lay down connective tissue.

We have produced tumors in the human which resemble keloids by injecting the cutaneous thigh areas repeatedly with human blood serum. The control sites, on the opposite thigh, injected with saline, did not produce microscopic changes[7].

Hence, it can be assumed that inspissated blood serum exerts a chemotrophic response by fibroblasts which lay down connective tissue in these traumatized areas.

The presence of tissue edema in these traumatized areas, where fibroblasts are laying down connective tissue, is a well-known observation to clinicians. This tissue edema can be generalized in nature, for it is also observed in integumental areas which are not producing actual keloids.

Recently, we obtained data which may explain the reason for this tissue edema[8], for we observed a reversal of the albumin-globulin ratio in a case of severe keloidosis. This ratio returned to a more normal

state as our treatment progressed.

We have noted two causes for pressure from within the tumor sites, namely: (1) the laying down of connective tissue, caused by the growth of the fibroblastic tissue mass, and (2) the skin edema which seemed to have been produced by a reversal of the albumin-globulin ratio. These two factors exert pressure on the integument from within and, if unchecked, the pressure continues so that herniation of the integument may ensue.

These tumors, which herniate through the integument, possess a marked blood supply, for they bleed profusely if injured, and this hemorrhage is far more pronounced than that which takes place when normal tissue bleeds. This has been observed heretofore in patients many times who exhibit keloidal growths, and also in our own case of the experimentally produced keloids. When these keloidal areas were extirpated, they bled much more profusely than did the control areas on the author's opposite thigh which had received the saline solution.

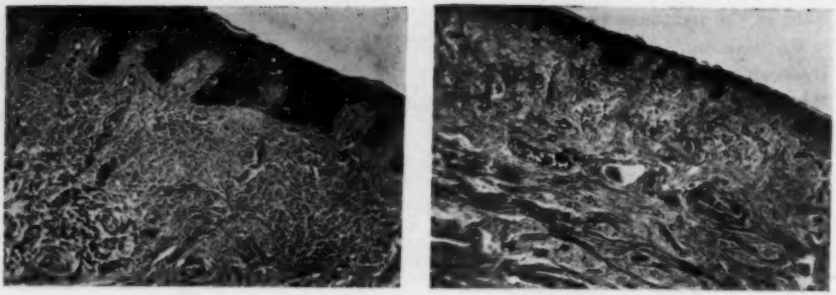
We believe that the size of the integumental herniation will determine just what type of tumor the fibroblastic growth will become. If the herniation is small, it may become a papilloma. If the base is wider, it will probably develop into a keloid. Furthermore, we observed that keloids change their shape with treatment so that, as their bases became more constricted, they began to resemble papillomas in their gross appearance. This may have been due to the tissue fluid loss in the tumor mass (edema) which we observed during the course of therapy with the vasoconstricting material which was derived from the liver extract or the liver paste.* This material consists of the vasoconstricting principle which was separated from liver by a series of selective fractionations. This new stable preparation is devoid of the hypotensive and the hypertensive factors normally found in liver extract. It contains no vitamin B_{12}, nor does it raise the systemic

blood pressure. As we have mentioned heretofore, we also observed at least a partial reversal of the albumin-globulin ratio in a patient who was under therapy with our injectable material.

Surgical Removal of Keloids The surgical removal of keloids is fraught with the dangers of hemorrhage and of their recurrence and, with this, there exists the chance that they may become larger in size than they were prior to extirpation.

In order to study what occurs with the removal of the skin tabs, which remained after these neoplasms were shrunk with our solution, Kutapressin (R), we began the extirpation of some very small growths. The particular patient, whom we used for this investigative work, became very apprehensive for fear of having to become subjected to extensive and uncontrollable hemorrhages which he remembered very vividly from his past experiences. In order to control the possibility of this danger, we transfixed and triply ligated the bases of some small keloid skin tabs with heavy cotton sutures. Each tumor was extirpated distal to these ties; the stumps were treated with an antiseptic, and a sterile dressing was applied. For a period of three days following this surgical procedure, the patient reported that a marked exudate was present every morning on

* This vaso-constricting factor, obtained from liver, is now manufactured by the Kremers-Urban Company of Milwaukee, Wisconsin, under the name of Kutapressin (R).



Specimens from the extirpated papilloma.

his pillow. Although we did not analyze this discharge, it had the appearance of blood serum which seemed to be seeping from the area of the surgical ties and, peculiarly enough, from the area of the adjacent keloids. The amount of serous exudate was increased markedly following the daily injections of Kutapressin (R). Surprisingly enough, the size of the other keloids became smaller in the adjacent areas, probably because of the vasoconstricting action of our material which pushed out this excess blood serum from the skin tissues.

Several much larger skin papillomas, which had changed their outward appearances from that of keloids, were then removed in a similar manner. The stumps above the ligatures sloughed off in about two weeks' time, and the bases of these tumors were smooth and did not reform or enlarge further.

We are under the impression that the use of Kutapressin (R) prevented their recurrence, since the blood serum appeared to leave the tissue through the use of our vasoconstricting material which at least partially corrected the already reversed albumin-globulin ratio. The escape of the blood serum from the tissues did not allow it to become inspissated. Hence, no further proliferation of fibroblasts and the formation of connective tissue took place.

A histological examination of one of the extirpated papillomas* showed "a polypoid growth of skin covered by an irregularly thinned layer of epidermis. There is some flattening of dermo-papillae. The dermal tissue is a fairly vascular fibrous tissue in which skin appendages, including sweat glands, sebaceous glands and hair follicles are quite abundant. Some small focal accumulations of lymphocytes and plasma cells are present in the subepidermal layer. The central core of the polyp is composed of rather dense hyaline connective tissue with prominent blood and lymphatic vessels. Some of the small blood vessels in the central zones show thick cellular walls."

The question has been asked many times' if Kutapressin (R) can be used for other diseases. Although this is not the purpose of our present communication, we have used this material for the adequate treatment of hundreds of cases of acne vulgaris. The cases of acne rosacea have responded nicely to its use as have five cases of pruritis ani, two cases of Raynaud's disease and one case of Buerger's disease. A study of the conditions which have been treated with Kutapressin (R) will be presented in future papers.

Read before the Midwestern Section of the American Federation for Clinical Research at the Congress Hotel, Chicago, on November 2, 1950.

*These studies were performed for us through the courtesy of Prof. W.A.D. Anderson, M.D., Chairman of the Department of Pathology, Marquette University School of Medicine in Milwaukee. Dr. Anderson also prepared the photographs of the specimens from the extirpated papilloma.

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Bank of Two Rivers Building

Aureomycin in the Treatment of Pertussis

Six children with pertussis ranging in age from 5 weeks to 3 years were given 350 mg. of aureomycin per Kg. per day for 8 to 10 days. In 3 of the cases hyperimmune serum had been given before aureomycin was started and in 1 case streptomycin had been given. Miller and Ross reported in *J. Pediat.* (37:307(Sept. 1950)) that all of the patients were virtually free of paroxysms of coughing by the 7th to 10th day and those who were cyanotic and vomiting were free of those symptoms by the 3rd to 5th day. The authors reported also that there were no serious manifestations of toxicity. No specific therapy other than the aureomycin was given once therapy with the antibiotic was started.

Absorption of Vitamin B_{12} In Pernicious Anemia

A series of four papers were presented by Ungley in the *Brit. Med. J.* (No. 4685: 905(Oct. 21, 1950), on the above topic. He pointed out that vitamin B_{12} has added further understanding to Castle's hypothesis that an intrinsic (gastric) factor and an extrinsic (food) factor necessarily interact to form the anti-pernicious-anemia factor stored in the liver. Vitamin B_{12} is a heat stable substance which behaves like the extrinsic factor in that when administered orally in small amounts it is effective in the treatment of pernicious anemia only when accompanied by a source of intrinsic factor.

The absorption of the vitamin without a source of intrinsic factor was studied by comparing the effective oral dose with the parenteral dose expected to produce a similar increase of red blood cells in 15 days in pernicious anemia patients. In most cases this ratio was several hundred to one but in 5 cases given a single dose of 3,000 micrograms orally the results were surprising in that they compared with 80 to 150 micrograms given parenterally. Apparently some of the vitamin can be absorbed without first combining with the intrinsic factor if the dose is large enough.

In studies in which normal gastric juice was given along with the vitamin it would appear that at least 500 cc. is needed to ensure an adequate hematopoietic response from as little as 50 to 80 micrograms of vitamin B_{12}, administered orally. Even then, the results were not consistently good. The volume of gastric juice required from the pernicious anemia patient, which would be almost entirely devoid of intrinsic factor, would be far beyond the secretory capacity of the stomach. Other studies showed that neither fresh milk nor a whey concentrate was an adequate source of intrinsic factor in place of normal human gastric juice.

The fourth study attempted to determine whether or not the intestinal juices had a deleterious effect on the absorption of the vitamin. The results indicated that avoidance of contact with intestinal juice would not improve the effective absorption of the vitamin. These results do not support but neither do they rule out the hypothesis that Castle's intrinsic factor acts by protecting vitamin B_{12} from destruction in the alimentary tract.

Hemorrhoids

Injection Treatment

Protrusions into the rectum caused by varicose bulging of the branches of the hemorrhoidal plexus are called hemorrhoids. The soft parts, which cover these varicosities, are frequently edematous and swollen. The size of the hemorrhoids will vary according to the dilatation of the vessels and according to the degree of swelling and edema of the covering soft parts.

According to their relationship to the mucocutaneous line (Pectinate Line, see figure 1 in our March article on Fissure in Ano) hemorrhoids are classified into internal, above the pectinate line, and external, distal to the pectinate line. The treatment of these two types of hemorrhoids is different.

Internal Hemorrhoids The internal hemorrhoids are varicose branches of the superior hemorrhoidal plexus, which drains through the superior hemorrhoidal vein into the portal vein. This fact is important for the injection therapy of the hemorrhoids. (See figure 1 in article on Fissure in Ano.)

Internal hemorrhoids can be suspected if the patient complains of the following symptoms: Bleeding of bright red colored blood from rectum, no pain, and prolapse of a mass from the rectum. To exclude malignancies, however, the diagnosis must be ascertained.

The diagnosis usually cannot be made from external inspection, unless the hemorrhoids are prolapsed, although in some cases by requesting the patient to bear down as if going to stool, the hemorrhoids may be brought into view, when the anal orifice is everted (as shown in figure 2 in article on Fissure in Ano). The soft internal hemorrhoids cannot be felt by palpation (as shown in figure 3 in article on Fissure in Ano). Proctoscopic inspection reveals the various types of hemorrhoids and the following varieties can be distinguished:

varicose: simple dilatation of the vessels (reddish appearance in proctoscope), usually no symptoms.

granular: ulceration of the mucosa besides varicosities (strawberry), symptom bleeding.

thrombotic: ruptured varicosities and thrombus formation (bluish appearance in proctoscope).

prolapsed: mucosa elongated and prolapsed through rectum.

Treatment Mild cases of internal hemorrhoids can be treated conservatively. Attention to bowel hygiene and diet in connection with astrigent ointments, which are inserted with a rectal applicator, as described in article on Fissure in Ano, might cure the condition.

Hot sitz baths are also helpful to alleviate discomfort.

The Technique of Injection Injection for the sclerosing therapy of hemorrhoids should be made only in the absence of any inflammation.

A cleansing enema should be given 4 to 6 hours before treatment.

Injection can be made with the patient in knee chest position or on the proctoscopic table.

The material constituting this Department is prepared by Dr. Bernard J. Ficarra, Surgery Editor of Medical Times, and Dr. Edward Singer.

Usually three to five injections are necessary to obliterate a hemorrhoid. One can inject up to three hemorrhoids in one sitting.

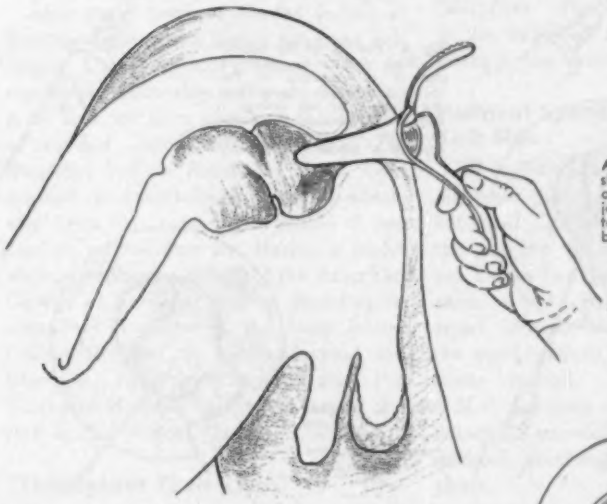
The pedicle of the hemorrhoid is injected at the first session in order to obliterate the hemorrhoidal vein and to fix the submucosa, thereby preventing a prolapse. At subsequent sittings the injections are made directly into the hemorrhoidal mass.

After each injection is completed the needle is left in place for a minute to allow the blood to coagulate, after which it is withdrawn. At the end of each session the patient is allowed to lie on the table a few minutes.

The patient should not experience any pain after correctly made injections.

For the injection a 5 cc. lock type syringe with an extension or with a long shafted needle is used. The viscosity of the sclerosing solution will determine the thickness of the needle: Phenol 5% in

Fig. 1. A Brinkenhoff speculum is inserted and the hemorrhoid is visualized.



As the patient strains and the slide of the speculum is opened the hemorrhoidal projections are visualized as distended masses covered with bright red mucosa.

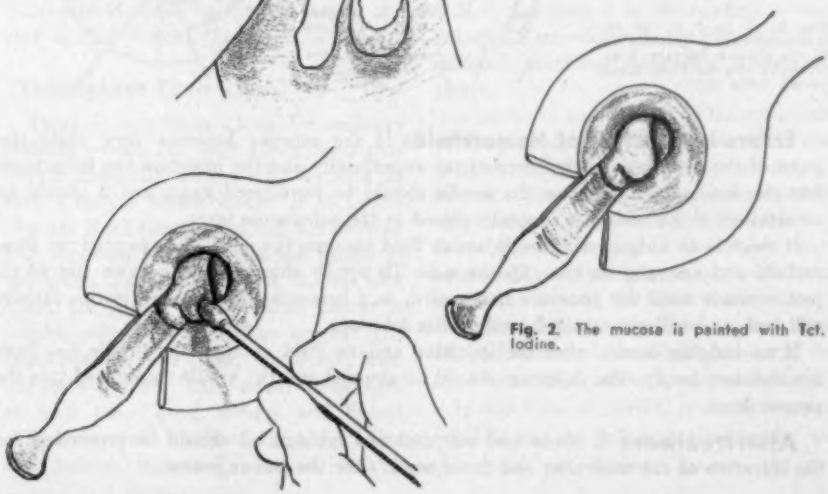


Fig. 2. The mucosa is painted with Tct. Iodine.

almond oil requires a 20 gauge needle, Quinine 5% and Urea hydrochloride requires a 25 gauge needle and sodium tetradecyl sulfate (1 to 3%) in 2% Benzyl alcohol requires a 27 gauge needle. Since a 20 gauge needle produces a large puncture in the mucosa and permits the escape of the sclerosing fluid into the rectum, phenol in almond oil has a great disadvantage in spite of its excellent sclerosing qualities.

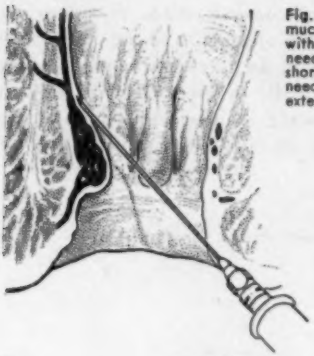


Fig. 3. The submucosa is pierced with a long shafted needle or with a short hemorrhoidal needle put on an extension.

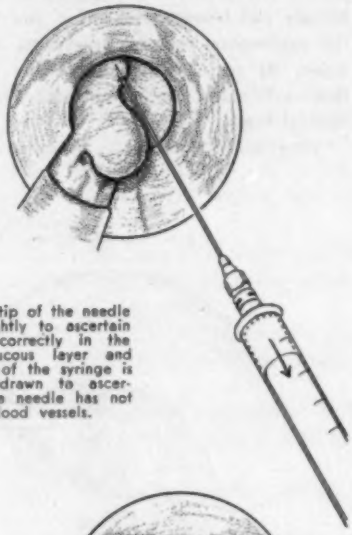


Fig. 4. The tip of the needle is lifted slightly to ascertain that it is correctly in the loose submucous layer and the plunger of the syringe is slightly withdrawn to ascertain that the needle has not entered a blood vessels.

Fig. 5. 1 to 2 cc. of the sclerosing fluid is injected until the mucosa becomes grayish white and the small blood vessels stand out.

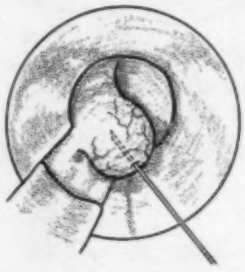


Fig. 6. Subsequent injections are made directly into the hemorrhoidal mass.

Errors in Injection of Hemorrhoids If the mucosa becomes very white the point of the needle has been inserted too superficially and the injection has been made into the mucosa. In this case the needle should be introduced again and it should be ascertained if the needle is properly placed in the submucose layer.

If there is no bulging and the injection fluid escapes, the needle has pierced the hemorrhoid and emerged on the opposite side. Th needle should be withdrawn and no injection made until the puncture has healed, as a hemorrhoid punctured in this fashion will leak and will not retain the sclerosing solution.

If no bulging occurs after the injection and no fluid escapes, the needle has been inserted too deeply. The injection should be stopped and the needle introduced into the proper layer.

Aftertreatment A bland and soft diet and mineral oil should be prescribed for the duration of the treatment and for a week after the last injection.

EDITORIALS

Dr. Pedersen Retires; Dr. Harris Assumes an Editorship

After many years of devoted service as Urology Editor, our highly esteemed colleague, Dr. Victor Cox Pedersen, has resigned this editorship. We are happy to state that we have obtained the consent of another distinguished colleague, Dr. Augustus Ludlow Harris, of Essex, Connecticut, to undertake the Urology editorship from this point. On behalf of our readers we welcome Dr. Harris, a diplomate in urology, a fellow of the American College of Surgeons and an attending or consultant urologist at the Long Island College Hospital, St. John's Hospital, the Brooklyn Thoracic Hospital and the Southside Hospital of Bay Shore, to the staff of this journal.

"Throughout Their Lives"

There is one thing about the military training of all our very young boys that should reconcile us to other aspects of such a radical social change. It is, as Dr. Howard Rusk has pointed out, the more or less overlooked effect upon the health of our youth. For all who have studied this effect are agreed that physical fitness is notably enhanced by military service. The same boys, by and large, would not, lacking such training, have equal advantages in civil life—"good mental and dental care, improved nutrition, regular hours and habits, increased physical activity and a greater awareness of health." And this *education* will last them throughout their lives. This should not be forgotten in the welter of controversial themes relating to this matter.

Political Spendthrifts Are Sick Men

While thoroughly appalled at the spending proclivities of some of the politicians entrusted (!) with the disbursements of the people's tax money, the people have not known how to remedy this deplorable situation—so advantageous to foreign enemies—because they have not understood the psychopathologic patterns and mechanisms involved.

Medicine owes it to the country to contribute its knowledge to the elucidation of national problems possessing a medical phase.

It seems to us—subject to the criticisms of the psychiatrists—that the reckless dispensers of billions suffer from a compulsion neurosis very similar psychoneurotically to the imperative impulses which motivate the alcoholic and the obese character, all everlastingly eating, drinking, spending—behold the noble trinity!

These political spendthrifts, in our view, are sick men and should be humanely retired from their absurd responsibilities.

If this view is correct, it devolves upon psychiatrists to enlighten the public on this point, for if these patients are not

liquidated out of political life our beloved country would seem to be doomed as a great power.

Perhaps this should be the theme song of the next campaign of the "loyal opposition."

This is written in good faith and we feel sure that few of our readers, if any, will accuse us of purely political motives; for the fate of medicine itself is indissolubly bound up with the destiny of the country at large.

Real Nature of the British Sickness

It all goes back to the close of World War I. In the words of Professor Louis M. Hacker of Columbia University, "the domination of London in international finance was over; Britain never recovered economically from World War I; there was endemic unemployment; would it not be wiser to settle for stability rather than an uneasy and disturbing progress; national security rather than international trade rivalry; and even permanent inequalities among men . . . ?" These were the things sensed by Lord John Maynard Keynes, the British economist. While he had far different remedies than socialism in mind the outcome that we see in Britain today is the most logical result of her fall from power and wealth to a state of political and economic inanition, which points up the danger to us of the course pursued by some of our inept politicians—the course of war, extravagance, paternalism, administrative incompetence and worse.

Socialism is the only answer when a nation falls to a very low level; degradation follows when freedom and strength are lost.

✚

"Rooms Within Rooms" Completed In New Medical Center Building

Construction of two rooms, each of which is a soundproofed "room within a room," was completed this weekend in the first new unit of the New York University-Bellevue Medical Center, now nearing completion on the Center's site from 30th Street to 34th Street, between First Avenue and the East River Drive, N. Y. C.

This first unit will provide the facilities for the Center's Institute of Physical Medicine and Rehabilitation, where disabled persons will be treated with the aim of returning them to normal living.

Each "room within a room" stands on springs, is insulated and soundproofed, and has no rigid connection with the room in which it stands. Lighting fixtures, windows and doors are done in double construction for complete isolation of people who occupy the rooms.

The rooms within rooms will be used by the Speech Therapy Division of the Institute to test aphasiacs, (persons whose powers of speech have been damaged or lost), and other types of persons with speech disorders, and to trace the progress of their development on sensitive recording machinery installed in the room. While being tested, persons with speech disorders will occupy an isolated room alone. Each of the new rooms is a cubicle, which measures five feet by six feet.

The new rooms were financed by contributions to the public appeal on behalf of the Center's Institute of Physical Medicine and Rehabilitation. This appeal, headed by General William J. Donovan and Mrs. Bernard F. Gimbel, co-chairmen, is currently seeking $250,000 to complete the $2,055,000 goal of the Institute building fund.

UROLOGY

AUGUSTUS L. HARRIS, M.D., F.A.C.S.*
Essex, Conn.

The Use of Urecholine in the Management of Chronic Urinary Retention

L. W. *(Journal of Urology*, 64:408, Aug. 1950) reports the use of Urecholine (beta-methylcholine urethane) in the treatment of 28 patients with postoperative or postpartum hypotonic dysfunction or chronic hypotonic dysfunction of the bladder. In chronic cases a dosage of 10 to 20 mg. every six to eight hours is recommended, although smaller doses were used in some cases in the series; in the postoperative or postpartum cases the dosage did not exceed 10 mg. three times a day and was often less. The duration of treatment in the 28 cases reported varied from two days to two weeks in most cases, but in 4 cases was prolonged for four weeks. In other cases, not included in this series, Urecholine has been employed for three months without any ill effect. The 28 patients in this series showed a reduction in the residual urine from an average of 350cc. to an average of 30 cc.; 11 patients had no residual urine when treatment was completed and 7 others had less than one ounce residual urine. While others have reported more or less serious reactions to Urecholine, no such reactions occurred in the author's series and the use of the antidote (atropine) was never necessary. Urecholine is not indicated if there is mechanical obstruction of the vesical neck.

COMMENT

Urecholine is one of a number of sympathomimetic drugs which have long been known and used for the treatment of vesical and intestinal atony, for relief of urinary retention and postoperative abdominal distention.

As stated by Lee, it is contraindicated in the presence of mechanical bladder-neck or urethral obstruction.

The reviewer has tried this, and other preparations, both orally and parenterally, particularly after operations on the prostate and bladder. On the whole, his results have not been too encouraging. Because of 'shock-like' reactions in certain sensitive patients, we have limited our dosage to 5 mg. With the first or second injection, it is well to start with a half dose, or to inject a portion in stages with the needle in situ, over a period of perhaps ten minutes. Occasionally, injections were stopped on the second or third dose, because of intolerance. We have seen severe chronic vesical atony which failed completely to respond to the drug.

The author has been more fortunate in using considerably larger doses, frequently repeated, without serious reactions. He is to be complimented on the results of treatment in his series of cases.

A.H.

Indications for Aureomycin and Chloromycetin in Urinary Infections

R. D. Herrold and A. W. Boand *(Journal of Urology*, 64:618, Oct. 1950) report the use of aureomycin and Chloromycetin in various types of infections of the urinary tract; Chloromycetin is now being used in a larger number of cases than aureomycin. Aureomycin, however, is de-

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finitely indicated in infections due to the species Pseudomonas; unless the organism has become streptomycin-resistant, streptomycin should be combined with aureomycin in cases of Pseudomonas infection. In a recent case of severe infection due to Pseudomonas of pyocyaneus type, the organism was entirely eradicated by treatment with aureomycin with ¾ Gm. daily of streptomycin for seven days. Organisms of the Proteus species are somewhat more sensitive to Chloromycetin than to aureomycin, but for best results the sulfonamide gantrisin (NU445) should be given in conjunction with Chloromycetin; this combination is well tolerated and gantrisin is more soluble than other sulfa drugs. In other gram-negative bacilli infections that occur in the urinary tract, *in vitro* tests have shown Chloromycetin to be more bacteriostatic and bacteriocidal than aureomysin as a rule. Resistance does not develop so rapidly with either Chloromycetin or aureomycin as with streptomycin. Where there is mixed infection with gram-negative bacilli and coccal organisms, combined antibiotic therapy—penicillin with Chloromycetin or aureomycin is indicated. In 3 cases with abacterial pyuria, Chloromycetin cleared the urine and relieved the subjective symptoms promptly. The usual dosage employed for both Chloromycetin and aureomycin is 3 Gm. the first day, fol lowed by 2 Gm. daily for five days, then by 1 Gm. daily for another four days—a total of 17 Gm. in ten days. In some cases this dosage may be reduced. The daily dosage is given in divided doses at six or four hour intervals, preferably the latter. Aureomycin is apt to caus gastrointestinal disturbances, but Chloromycetin is well tolerated; the authors have seen only one severe reaction in 30 cases — severe stomatitis and glossitis that made it necessary to discontinue the drug on the seventh day. As new antibacterial agents become available, it becomes increasingly important to identify the infecting organism or organisms in each case, and to determine their sensitivity to the various drugs and antibiotics available.

COMMENT

This contribution, based on clinical experience, is another creditable addition to the very extensive literature on the contemporary use of antibiotics.

It must be stated that the therapy of antibiotics is becoming increasingly involved and confused. The basis for all therapy, to be truly satisfactory, must rest upon the in vitro tests of well equipped laboratories. This is indicated in the resort to various combinations now employed for treatment. Sensitization of the individual and tolerance of the bacteria to the agent are elementary factors that are conflicting and yet to be more fully determined in the realms of chemistry and clinical knowledge. Progress is being made in the bacterial resistance tests on culture media.

Already, about seven antibiotics are available. Of these, the newer Terramycin appears to have an extensive range of antibacterial activity. The precise identification of the infecting organism is the ideal prerequisite to treatment.

It should be stressed that the soluble sulfa drugs, with or without antibiotics, have a place in combating urinary infections. They may be specific for **B. coli**, the organism most commonly encountered. Mechanical and obstructive factors, with urinary stasis, must first be eliminated, if satisfactory results are to be obtained.

A.H.

The Injection Technique for Hydroceles and Spermatoceles

M. M. Mayers (*Urologic and Cutaneous Review*, 54:605. Oct. 1950) reports the use of the injection method of treatment in 84 of 93 hydroceles and 36 of 37 spermatoceles in 105 patients. Of the hydroceles, 82 were cured and 2 "probably cured"; of the 36 spermatoceles 33 were cured and 3 improved. For the injection treatment of large hydroceles an 18-calibre needle is used, for smaller hydroceles a No. 20 needle is preferable. The needle is inserted in the upper portion of the sac, avoiding obvious blood vessels, but the end is brought close to the bottom of the sac, and fluid contents aspirated. It is important that all the fluid should be withdrawn. The testicle and epididymis are carefully palpated to determine if any pathological

condition is present that contraindicates the injection therapy. After the sac is emptied, 1 or 2 per cent procaine solution is injected into the sac. The sclerosing solution employed is quinine hydrochloride, 13.33 per cent and urethane, 6.66 per cent; if a second injection is necessary only the quinine hydrochloride solution is used. In the largest hydroceles, not more than 6 cc. of the quinine hydrochloride solution and 15 cc. of the urethane solution is employed; for hydroceles under 75 cc. approximately 2 cc. of quinine hydrochloride solution and 6 cc. of the urethane solution are sufficient; in infants and small children smaller amounts (1 cc. or less) of the quinine hydrochloride solution are used. Second injections were not employed in the majority of the cases reported. The chief contraindications to the injection treatment of hydrocele and spermatocele are infection or hemorrhage; pathological changes in the testicle, epididymis or cord; a communication between the abdominal cavity and the hydrocele; and hydrocele with very thick walls. In a questionnaire sent to members of the Western Section of the American Urological Association in regard to the use of the injection treatment of hydrocele and spermatocele, 170 replies were received. Of these 90 urologists had never used this treatment; 40 were using the procedure, and 40 had used it, but had abandoned it. Of the 40 urologists using the proceudre, 13 reported excellent results and 14 good results; 13 reported "fair" results. The best results were obtained by those who had treated the largest number of cases. Of the physicians who had abandoned the method, none had treated a large series of cases, and the majority had treated only one or two cases; several reported the use of sodium morrhuate or some sclerosing solution other than the one recommended by the author. These findings indicate that the greater the experience of the physician with the injection treatment, the better his results and the more likely he is to use the method in most of his cases.

COMMENT

Mayers is to be complimented on the report of his successful results in the injection treatment of hydrocele and spermatocele. In our hands, one injection of one 2 cc. ampoule of quinine and urea hydrochloride 0.266gm. and urethrane 0.133., after emptying the sac completely (with 20 gauge needle), has usually cured the condition. Due care must be exercised to keep the needle within the sac, as it is evacuated, to avoid infiltration and resulting cellulitis of the adjacent tissues, when the sclerosing solution is injected. In large hydroceles, a second treatment may be necessary, and rarely, a third. We have found the use of novocain to be unnecessary, as the quinine solution produces no pain.

The remote possibility of anaphylactic reaction to the drug must be considered. I have seen two such occurrences, in which a good part of the solution was immediately withdrawn, with regression of symptoms. Proportionate dosage for children is also to be noted. Hydrocele of the cord is equally amenable to the injection treatment.

The reviewer, having applied this treatment for 15 to 20 years, fails to understand why the conservative method has not been widely practiced by urologists. As compared to surgery, there are the advantages of no period of disability, and no major expense to the patient. Operation can always be resorted to, in the few, where the injection therapy fails.

A.H.

Carcinoma of the Prostate Gland; Results of Conservative Treatment

L. R. Reynolds and associates *(Archives of Survery,* 61:441, Sept. 1950) report 104 cases of prostatic cancer treated with diethylstilbestrol given by mouth in enteric-coated tablets. Treatment was begun in all cases as soon as the diagnosis was established; most of these patients were found to have advanced neoplasms at the first emaxination; evidence of bone metastases was found in 39 cases. When this method of treatment was first tried, a daily dose of 3 mg. was used. For the last five years, a dose of 5 mg. daily has been employed which is increased as indicated by the symptoms or development of a metastasis up to 50 mg. daily. In some cases, after prolonged treatment, the dose could be reduced to 2 or 3 mg. daily. In older patients who developed urinary re-

tention, an indwelling catheter was employed; some of these patients were able to void satisfactorily after three or four months of catheter treatment; in others, a transurethral resection was necessary. Transurethral resection was done in 56 patients, and some of these patients required two or more resections, making a total of 74 transurethral resections; there was one postoperative death. Of the 104 patients treated, 81 are living, 18 have died, and 5 have not been traced; of the 18 who died, death is known to be due to prostatic carcinoma in 9 cases, and was apparently due to other causes in 9 cases. The average time of survival for the 81 living patients under treatment is 34.7 months; excluding 13 patients under treatment for less than a year, the average survival time is 41.1 months. Of the 104 patients 22 lived more than five years, and 16 of these are still living. Relapses were observed in some patients under treatment with diethylstilbestrol, but this did not occur as frequently nor were the relapses as severe as reported by others. Relapses occurred in some cases when the use of the hormone was discontinued. Further improvement was obtained in "a good proportion" of the relapses by continuing diethylstilbestrol in increased dosage. Only a few patients became resistant to the hormone.

COMMENT

The epoch-making discoveries of Dr. C. B. Huggins are the basis for the newer palliative anti-endrogenic treatment of prostatic carcinoma. The treatments are either castration, or estrogenic hormone medication, or a combination of both. Some perform castration as soon as the diagnosis is established, and follow, later, with hormone, as indicated. Others do not subscribe to orchiectomy, except in the older patients with more advanced and painful metastases. Where diagnosis is in doubt, surgical biopsy should always be done preceding any treatment.

The beneficial effects of hormone are often rapid and dramatic in control of pain and in marked constitutional improvement. This compares favorably to results of castration. Histological destructive changes in the carcinoma cells of the prostate have often been demonstrated during and following treatment. We favor ethinyl estradiol, with its advantages of much greater potency. Our dose is rapidly increased for seven to ten days, for 'saturation', and then reduced for small daily maintenance, to be continued indefinitely. Patients vary materially in their tolerance and, not infrequently, have to discontinue for one to four weeks, because of very tender nipples and a tendency toward gynecomastia.

Unfortunately, comparatively few patients report for examination in the early stages, when complete perineal prostatectomy offers hope of cure. More advanced stages are the rule: e.g., in the authors' series almost forty per cent were found to have bone metastases. In spite of this, L. R. Reynolds and his associates were able to report remarkable results with about twenty per cent living more than five years.

Transurethral prostatic resection is widely used to maintain urethral patency, and repeated if urinary obstruction recurs.

A.H.

Streptomycin in Urinary Tuberculosis

Arthur Jacobs and W. M. Borthwick (*British Journal of Urology*, 22:238, Sept. 1950) report the use of streptomycin in the treatment of tuberculosis of the urinary tract in cases representing different types and stages of the diseases, with controls not treated with streptomycin in each group. On the basis of their fifteen months' experience with streptomycin therapy in these cases, they conclude that the treatment has no effect on established renal lesion of the caseocavernous type. In cases where nephrectomy is done for unilateral renal tuberculosis, streptomycin may be of value before and after operation in preventing activation and development of the disease in the opposite kidney, but this was not definitely demonstrated in their series of cases. Streptomycin is of definite value in the treatment of tuberculous cystitis secondary to renal tuberculosis, but its effectiveness depends to some extent on the presence and extent of the disease in the upper urinary tract. Thus in cases in which nephrectomy had been done for a unilateral renal lesion, the cystitis cleared up and urine became negative in "an appreciably larger number" of cases treated with streptomycin than in the untreated controls. Streptomycin also had a favorable effect on the cystitis in

cases of bilateral renal tuberculosis with minimal lesions but no appreciable beneficial effect when the renal lesions were more advanced. Streptomycin, therefore is not a substitute for prolonged sanatorium care in urinary tuberculosis or nephrectomy in unilateral renal lesions, but it is of value as an adjuvant to such measures, especially in cystitis.

COMMENT

We believe the report of the British authors corresponds with the recorded experiences of American writers.

Certainly streptomycin therapy is no substitute for nephrectomy in unilateral involvement. There is general agreement that caseocavernous lesions cannot heal without surgery. However, the antibiotic has aided greatly in the relief of symptoms of patients with well-developed bilateral lesions, and particularly, in the residual bladder involvement after nephrectomy.

We emphasize here, that removal of the entire diseased kidney and ureter, as advocated by the late Dr. Edwin Beer, and others, has greatly added to the percentage of cures and symptomatic relief.

Streptomycin should be used judiciously, both before and after surgery. There is a definite trend toward the use of smaller doses than hitherto employed (now one to 2 grams per day). In addition, par-aminosalicylic acid is considered an important adjunct. Latimer continues treatment for a year after surgery.

The constitutional hygienic treatment should continue to occupy an important place.

A.H

OTOLOGY

L. CHESTER McHENRY, M.D., F.A.C.S.*
Oklahoma City, Okla.

Office Procedure in Hearing Evaluation: A Practical Approach

L. L. Sawyer *(Laryngoscope,* 60:1061, Nov. 1950) reports a study of various methods of testing hearing that can be used in a physician's office. On the basis of this study the author concludes that the room in which hearing tests are to be made must be sound proofed so that the ambient noise level does not exceed 45 db. measured with the weighting curve C. A modern audiometer should be employed and equipped with two headphones encased in rubber, or one headphone and a dummy headphone or rubber plaster mixing bowl for the ear not being tested; and also with a system for reproducing recordings. All equipment must be standardized by tests on persons whose hearing is known to be normal. For such tests the author first used 10 such persons (20 ears), but considers that 4 persons (8 ears) are sufficient for satisfactory standardization. The equipment should be recalibrated every six months by this method. The essential tests to be made with this equipment are: Air conduction tests for pure tones 128 cps. to 8,102 cps.; bone conduction tests for 512, 1,024, 2,048 and 4,906 cps. and speech reception tests. The speech reception tests include Auditory Test 9—spondee words—to determine the threshold; and P B 50-word lists at 25 db. above the threshold and at the maximum intensity tolerated. With these tests, the hearing loss for speech can be evaluated quantitatively by the use of the Social Adequacy Index (SAI). The recordings made with such equipment, the author believes, "afford a simple but reliable method of testing speech reception," while the SAI for Hearing makes it possible to evaluate such tests

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in relation to the use of hearing aids, auditory training and the fenestration operation.

COMMENT

The equipment and procedures outlined approach the ideal, according to present-day standards, for an otologist's office. The otologist who does not perform the fenestration operation, nor carry out auditory training, nor attempt to evaluate hearing aids does not need such extensive equipment and procedures.

L.C.McH.

Effect of Gunfire Upon Auditory Acuity for Pure Tones and the Efficancy of Earplugs as Protectors

F. W. Ogden *(Laryngoscope* 60:993, Oct. 1950) reports a study of the effect on the hearing of repeated exposure to gunfire in 187 gunnery instructors who had served on the firing ranges from one to fourteen months at the Army Air Field, Laredo, Texas. A study was also made of 184 students who had not begun gunnery training and had not been close to gunfire since their basic training (at least three weeks) for comparison. The instructors had been exposed daily to repeated gunfire from 50 and 30 calibre machine guns or shotguns. In the study of the value of earplugs as protectors, audiograms were made for 331 gunnery students before the beginning of a six weeks' course in gunnery and during the last days of the course. Sixty of these students wore no earplugs during the course; specific types of earplugs were worn by the other students whenever they were exposed to gunfire. It was found by comparing the audiograms of the gunnery instructors with those of students not recently exposed to gunfire, that the gunfire to which these instructors were exposed caused a definite loss of hearing for high tones when tests were made immediately after exposure to the noise, but tests made twenty-four to forty-eight hours after exposure to gunfire showed that "a major portion" of this hearing loss was recovered by that time. In the gunnery student group, significant loss of hearing for high tones was found only in those students who wore no earplugs. The students who wore earplugs (one of five types) showed no significant loss of hearing during the course of gunnery training, with one minor exception. The students who wore no ear plugs were tested two to three days after exposure to firing had ceased, yet showed a definite loss of hearing. Nearly half of the students wearing different types of ear plugs were tested after a rest period of only one day, although some in each group were tested after two days. The hearing losses in the students wearing different types of ear plugs were not sufficiently great to indicate whether one type was more effective than another.

COMMENT

An interesting report. It would seem obvious that ear plugs gave some protection, at least against traumatic hearing loss. It would be interesting to know just how much residual hearing loss the instructors have and whether the instructors are now wearing ear plugs of some approved design.

L.C.McH.

Fenestration by Cold Fracture Method: Preliminary Report of an Improved Technic

Samuel Rosen *(A.M.A. Archives of Otolaryngology,* 52:618, Oct. 1950) describes a new technique for the fenestration operation in which hand-drawn dental hoe excavators are used instead of the electrically driven dental burr. With this technic no heat is generated. The effect of heat on the bone and the membranous labyrinth is not known; but it seems probable that the "cold" fracture method described is less likely to "favor" osteogenesis. After the horizontal semicircular canal is freed of periosteum with a wide dental hoe excavator, a narrow hoe excavator is uesd to scrape the bone repeatedly downward and posteriorly from 0.15 to 1 mm. from the facial canal anteriorly for about 4 to 6 mm., forming a trough; the pressure on the instrument is then reduced

until the perilymph space is exposed. A second parallel incision, through an exposure of the perilymph space, is made 2 to 3 mm. posterior to the first just behind the posterior incision and much of the external semicircular canal is curetted away, leaving the fenestra "high on the summit of a mound." The cupola or roof of the fenestra is snapped off with a No. 5 zero curet introduced along its long axis, creating a wide fenestra; this bone usually comes away intact because of its thickness. This technic was first perfected on 100 fresh cadavers, but has recently been used in the operating room with god results.

COMMENT

This author has written several articles recently regarding fenestration techniques and modifications. We have not as yet heard from other "fenestrators" regarding these techniques so cannot attempt to evaluate them. The modification described would seem to be not only technically quite difficult but more hazardous than the burr methods.

L.C.McH.

Aureomycin in Treatment of Otitic and Ophthalmic Herpes Zoster

E. W. Gans *(Laryngoscope,* 60:939, Sept. 1950) reports the use of aureomycin in otitic herpes zoster. This antibiotic was first employed in a case of otitic herpes with 7th nerve paralysis (the Ramsey-Hunt syndrome) with such excellent results that it has since been employed in the treatment of all cases of herpes zoster in the eye, ear, nose and throat department. The dosage used is 500 mg. every six hours for adult patients for two to three days; one child, treated for otitic herpes, was given 250 mg. every six hours for three days. In all cases pain has been relieved promptly, usually by the second day, and the herpetic lesions have healed more rapidly than with other methods of treatment. Vitamin B, physiotherapy, iodides, and topical aplication have also been employed in addition to aureomycin, as indicated. In the first case treated, noted above, vitamin B and physiotherapy were also employed, and the facial paralysis cleared up completely by the thirteenth day. Six cases, 4 of which were otitic herpes zoster and 2 ophthalmic herpes zoster, treated with aureomycin, are reported, in all of which there was prompt relief of pain, early healing of the herpetic lesions and "a minimum of complications." Only one of these patients (a case of ophthalmic herpes) showed any residuum at the last examination.

COMMENT

A hopeful report. Some other authors have not reported as good results with aureomycin in herpes.

L.C.McH.

Ménière's Syndrome

Burech Rachlis *(A.M.A. Archives of Otolaryngology,* 52:373, Sept. 1950) presents a review of the symptoms of Ménière's syndrome, from which he concludes that this term should be used instead of Ménière's disease. Ménière's syndrome should be classified as "of peripheral, central, or psychosomatic origin." In the peripheral type the nystagmus is usually a mixed horizontal-rotatory type, while this type of nystagmus is not characteristic of the central type or the psychosomatic type of Ménière's syndrome. Vertigo in the peripheral type originates in the inner ear or labyrinth; in the central type it originates in the medulla, pons, cerebellum and cerebrum. Tinnitus and deafness are characteristic of the peripheral type syndrome; the deafness is of the conduction type at first, but later of the perceptive type. Deafness in the central type is a nerve or perceptive deafness from the first and may become complete if there is an acoustic neurinoma. In Ménière's syndrome of psychosomatic origin the symptoms are "inconsistent, variable, and influenced by suggestion." Tinnitus and hypersensitivity to acoustic stimuli may be present, but are "variable and inconsistent."

Deafness and Kernicterus

R. V. Barnett and C. F. Ryder *(A.M.A. Archives of Otolaryngology,* 52:771, Nov. 1950) report a case of hemorrhagic disease of the newborn in which an exchange transfusion of group 0-Rh negative blood from a male donor was given forty-eight hours after birth. While the child survived, she showed evidence of severe brain damage (kernicterus) with marked general retardation and complete deafness. At fourteen months of age, she cannot lift her head or sit up and there is no evidence that she has any hearing, as she does not react to "even loud noises," although no hearing tests can be made owing to the mental retardation. She does, however, react to visual stimuli. Some pediatricians have stated that deafness may be a symptom of kernicterus, but the authors have found no cases reported in which deafness was definitely mentioned as a complication. Whether results would have been different in this case if the exchange transfusion had been given immediately after birth, or a female donor had been employed, is problematical. This case suggests "an added hazard" in the sequelae of erythroblastosis fetalis, even when treated by exchange transfusion.

COMMENT

It would be interesting to know whether children who survive erythroblastosis fetalis without severe cerebral damage have hearing losses.

L.C.McH.

RHINOLARYNGOLOGY

L. CHESTER McHENRY, M.D., F.A.C.S.*
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Primary Tumors of the Nasal Septum

F. A. Sooy *(Laryngoscope,* 60:964, October 1950) discusses the various types of primary tumors of the nasal septum and reports 11 cases from his own practice. These 11 cases include one case each of lympho-epithelioma, papillary epidermoid carcinoma, giant cell tumor, hemangioma, papilloma, squamous carcinoma, inflammatory polyp, granuloma, hemangio-epithelioma, squamous cell papilloma and glioma. In the treatment of primary tumors of the nasal septum, adequate resection of the tumor at operation is essential if recurrence is to be prevented. Intranasal resection has been employed by the author for both large benign tumors and malignant tumors of the nasal septum. In cases of posterior malignant lesions, all the posterior septum and most of the anterior septum are resected, and the margins of the wound are fulgurated. If there is a recurrence, recauterization is done followed by intranasal radiation; the extensive septal resection at the primary operation facilitates this procedure. For small local recurrences a radium needle is used with a retainer that can be fixed and held in the correct position to give uniform radiation. Since Morrison and Low-Beer developed a method of using Radioactive Cobalt 60 for the radiation treatment of intranasal tumors, the author has also em-

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ployed this method, instead of radium, with "promising" results. The cytological study of smears from malignant epithelial lesions of the nose has been found of most value in finding early recurrences, as in the author's case of lympho-epithelioma, and in studying the effects of radiation treatment.

COMMENT

An interesting report. One must be mindful of the fact that microscopic diagnosis is necessary if serious mistakes are to be avoided.

L.C.McH.

Hyaluronidase in Rhinoplasty

M. H. Cottle and associates (*A.M.A. Archives of Otolaryngology*, 52:369, Sept. 1950) report the use of hyaluronidase in 50 cases of rhinoplastic surgery, often combined with submucous resection of the septum. The solution employed for local anesthesia contained 25 units of hyaluronidase to 25 cc. of 1 per cent procaine with 0.05 cc. of 1:1000 solution of epinephrine hydrochloride. From 0.5 to 3 cc. of the solution was injected at various points to secure satisfactory anesthesia of the nerves in the operative field. In 20 cases, injections of this solution were given into one side of the nose, while the procaine-epinephrine hydrochloride solution alone was used on the other side. It was found that the use of the hyaluronidase prevented the thickening and swelling of the tissues in the infiltrated area. In some cases in which reinfiltration of certain areas was necessary in the course of operation, it was noted that the fluid injected disappeared rapidly with the use of hyaluronidase in the solution. In 12 cases of recent fracture of the nose with swelling and distortion, anesthesia of only a limited degree was obtained with the procaine solution alone, but an additional injection of the solution containing hyaluronidase not only gave complete anesthesia, but also markedly diminished the swelling. In all cases in which hyaluronidase solution was used, anesthesia was obtained rapidly ("practically instantaneously") and operating time thus reduced.

Bleeding was never increased with the use of hyaluronidase, and in the authors' opinion bleeding was definitely less than when it was not used. With the reduced swelling of the soft tissues and diminished subcutaneous secretion obtained with the use of the hyaluronidase solution, well fitting dressings can be more easily adjusted, less scar tissue results and there are fewer postoperative complications and better end results. No undesirable systemic or local reactions to hyaluronidase have been observed.

COMMENT

There seem to be very definite advantages in the field of rhinoplastay. Whether the rapid absorption of the anesthetic fluid may be a disadvantage in some other fields needs to be considered, of course.

L.C.McH.

Antrochoanal Polyp

W. E. Heck and associates (*A.M.A. Archives of Otolaryngology*, 52:538, Oct. 1950) report that in 1720 cases given a diagnosis of nasal polyps at the Mayo Clinic in 1938 through 1947, 56 were definitely found to be cases of antrochoanal polyps, and in 8 other cases, this diagnosis was probable, although the available records are "not entirely clear." In these 64 cases, 7 patients were under thirteen years of age and 6 were sixty to sixty-nine years of age; there was a uniform distribution of cases in the age periods between these two extremes. The site of origin of the polyp in the antrum could not be determined in this series of cases. In 15 patients (23.4 per cent), there was evidence that an allergic factor might be present—either a history of allergic disease, a family history of allergy, positive skin tests, or blood eosinophilia or a combination of two or more of the factors. Roentgenographic examination of the nasal sinuses showed evidence of a unilateral lesion in 35 cases in which this was confirmed at operation, but in only

6 of these cases was a diagnosis of polyp or cyst or tumor made by the roentgenologist; in one other case the surgeon made a diagnosis of unilateral polyp. Fifty-nine of the 64 patients were operated on for the removal of the polyps at the Clinic. In the 18 cases in which the external approach to the antrum was used, there was only one recurrence (approximately 5.5 per cent); in the cases in which avulsion or removal of the polyp was done through an antrum window, the rate of recurrence was 28.2 per cent. A study of the gross appearance and microscopic characteristics of the antrochoanal polyps, as compared with nasal polyps, showed the dumb-bell shape to be characteristic of antrochoanal polyps, but not of nasal polyps. Microscopially the chief differences were that nasal polyps frequently contained mucous glands, antrochoanal polyps almost never showing mucous glands; and that eosinophilia was much more frequently present in nasal polyps than in antrochoanal polyps. Of 54 specimens of antrachoanal polyps only 11 showed definite iosinophilia, while of 54 specimens of nasal polyps 27 showed eosinophilia. This indicates that allergy may be frequently a stimulus of growth for nasal polyps, but that this is not the case in antrochoanal polyps. This study has not shown the cause of the antrochoanal polyp.

COMMENT

Antrochoanal polypi of course originate from a pathologic condition of the antral mucous membrane. Since many of such large polypi do not recur after simple removal the decision as to surgical exploration of the antrum in such cases would depend upon other factors in addition to the presence of the polyp.

L.C.McH.

Tuberculous Retropharyngeal Abscess Treated by Surgery and Streptomycin

M. T. Smith *(A.M.A. Archives of Otolaryngology,* 52:767, November 1950) reports a case of tuberculous retropharyngeal abscess in a patient with moderately advanced pulmonary tuberculosis. When the swelling on the posterior pharyngeal wall on the left side showed fluctuation, it was aspirated and the fluid withdrawn showed the presence of tubercle bacilli. Streptomycin was given by intramuscular injection in a dosage of 1 Gm. daily for thirty-five days. In this time the size of the swelling in the retopharyngeal space increased but the patient had neither pain nor dyspnea and only a little difficulty in swallowing. Roentgenograms showed no involvement of the cervical vertebrae. Under local anesthesia an incision was made vertically over the retrophryngeal swelling; the abscess was found to be well encapsulated and the abscess sac was easily shelled out to the lower posterior pole, where it was found to be adherent and where there was a mass of granulation tissue. The intramuscular administration of streptomycin was continued for forty days after this operative procedure. The abscess cavity healed "completely" in less than twenty-one days, and remains healed two and a half years after treatment. There was mild vertigo and nausea during streptomycin treatment, which ceased soon after discontinuing treatment; caloric tests did not elicit response during treatment, but the responses afterwards became normal. There was no impairment of hearing, as shown by audiograms. While tuberculous laryngitis is a more frequent complication of pulmonary tuberculosis than tuberculous lesions of the nasopharynx, the possibility of the latter should be kept in mind, and histological and bacteriologic studies made of suspicious lesions.

COMMENT

Cold abcesses in this area usually develop from involvement of the vertebrae. The author is to be complimented upon the excellent result obtained in this case.

L.C.McH.

The Risk of Poliomyelitis After Tonsillectomy

G. W. Anderson and associates *(Annals*

of Otology, Rhinology and Laryngology, 59:602, September 1950) report a study of the relationship of tonsillectomy to the occurrence and severity of poliomyelitis during the 1946 outbreak of poliomyelitis in Minneapolis. In 2709 cases of poliomyelitis in which the clinical history could be obtained, 19 had had tonsillectomy or adenoidectomy done during the month preceding the onset of poliomyelitis; 18 had had tonsillectomy done during the second or third month preceding the onset of the disease. In 12 of the 19 cases operated within a month preceding the onset of poliomyelitis, the disease was of the bulbar type (63.2 per cent), while in the 18 cases in which tonsillectomy was done in the second and third months preceding onset, the disease was of the bulbar type in only 4 instances (22.2 per cent). With two exceptions the children in the group of 19 tonsillectomized in the month preceding the onset of poliomyelitis were three to seven years of age. If the incubation period of poliomyelitis is considered to be seven to twenty days, tonsillectomy was done in 15 of these cases within the incubation period; of the 12 cases of the bulbar type, all were in this group of 15 cases. Statistics comparing the incidence of poliomyelitis in children three to seven years of age who had been tonsillectomized within a month preceding the onset of the disease with the incidence in children of this age group, not tonsillectomized, shows that the risk of developing poliomyelitis is "at least thre times as great" in tonsillectomized children, while the risk of bulbar poliomyelitis is eleven times as great.

COMMENT

The authors' figures show a greater relationship between tonsillectomy and poliomyelitis than most of the other studies which have been made. The fact that the studies were made during a severe epidemic probably has significance.

There is a wide difference of opinion as to whether or not tonsillectomy increases the risk of development of policmyelitis, and if so, how much? A number of reports seem to indicate that the recently tonsillectomized child has a much greater risk, if he develops poliomyelitis at all, of developing bulbar involvement.

L.C.McH.

OPHTHALMOLOGY

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Epidemic Keratoconjunctivitis

O. J. Pelliterri and J. J. Fried *(American Journal of Ophthalmology*, 33:1596, Oct. 1950) report a small outbreak of epidemic keratoconjunctivitis; there were 24 cases, and of these all but 4 had visited the same ophthalmologist's office. The first patient was apparently the source of the infection; the 4 patients who had not visited the office but developed the disease were contact infections in the home. The first symptom noted in each case was a serous discharge, which did not become purulent; the palpebral conjunctiva was first involved, then the bulbar conjunctiva; there were some constitutional symptoms —a slight fever, malaise, headache, in the

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early stages. In about a week the conjunctivitis began to clear and the patients felt well. Corneal infiltrations developed early in the disease, and regressed slowly; there was considerable impairment of vision lasting five to eight weeks, but the vision was not permanently impaired in any case. No inclusion bodies and no microorganisms were found in smears from conjunctival serapings in 10 of the cases. In addition to treatment with compresses and antiseptic ointments, penicillin was given by topical application and intramuscular injection in some cases and an aureomycin salve was employed in others; 4 patients were given blood from others convalescing from the disease. There was no beneficial result in any case. Control measures in the office—the use of separate syringes and eye droppers for each patient that were sterilized after use and "thorough handwashing" by the physician and the nurse—and instruction of the patients in precautions at home prevented any further spread of this small epidemic. The authors are of the opinion that epidemic keratoconjunctivitis occurs more frequently than is indicated by the number of reported cases.

COMMENT

This type of conjunctivitis is contagious and requires of the oculist and his assitants extraordinary care of instruments, towels, etc., coming in contact with the patient. This is not the first report of an office being the place from which new cases of infection have spread.

Up to now, the reports of the efficacy of various antibiotics in treating these cases have been conflicting to such a degree that it is difficult to think of the disease in one community as due to the same agent operating in another community.

R.I.L.

The Use of Ether in the Treatment of Herpetic Keratitis

Bernard Kronenberg *(New York State Journal of Medicine,* 50:2825, Dec. 1, 1950) reports 20 cases of herpetic keratitis recently treated by his method of ether application; 12 of these cases were from his private practice and 8 were treated at the New York Eye and Ear Infirmary. This method of treatment of herpetic keratitis was first described by the author in 1941 and he has had good results with this method since that time. Before making the ether application the eye is anesthetized with 1 per cent Pontocaine, and the lesion is outlined with fluorescein. A small cotton applicator, tightly woven, is dipped into the ether, the excess is shaken off, and the lesion is rubbed with the applicator wet with the ether to remove the corneal epithelium from the lesion and a small area around it. The ether "must be rubbed in," not merely applied to the lesion. If the applicator becomes dry before the treatment is completed a fresh applicator is wet with ether and used to finish the removal of the epithelium. Metaphen ophthalmic ointment is instilled before the eye is bandaged. The eye is examined in twenty-four hours, using the fluorescein stain, and "any small remnants" of the lesion that may be found are treated as before and the metaphen ointment instilled and the bandage applied. In another twenty-four hours the eye is again examined with the fluorescein stain, as before; a third treatment may be necessary at this time, but not in most cases. The eye, however, is bandaged for at least another twenty-four hours, so that the epithelium heals well. In the 20 recent cases reported, 7 required a second treatment, only 2 required a third treatment, and in the remainder one treatment was sufficient. This method of treatment is "completely painless"; none of the author's cases became chronic when treated early. If good results are to be obtained with this method, the technique described must be "faithfully" followed.

COMMENT

The remedies used locally for keratitis dendritica are numerous. The commentator has found the local use of carbolic acid (95%) very satisfactory indeed. The real problem concerned with all herpetic lesions of the cornea is not the cure of the initial lesion but

the prevention of later complications which are due to lowered sensitivity and vitality of the affected cornea. As long as the cornea shows lowered sensitivity to a wisp of cotton, there is likelihood of reinfection or recurrence of the ulcer. Another complication is disciform degeneration of the cornea. The last complication occurs in cases of dendritic keratitis which recover promptly and the patient believes he is fully recovered and exposes the eye. The vitality of the cornea has its rise and fall and ulcers have recurred off and on for 10 to 12 years. The only means of avoiding these complications is to protect the cornea whenever there is a relapse or local irritation indicates its coming.

R.I.L.

Human Infection with the Newcastle Virus of Fowls

A. H. Keeney and M. C. Hunter *(A. M. A. Archives of Ophthalmology,* 44:573, Oct. 1950) report a case of eye infection with the Newcastle virus of fowls; this was a laboratory infection of one of the authors (M. C. H.). The first symptom was granular conjunctivitis of the eyelids; later the bulbar conjunctiva became involved, and some secondary infiltration of the cornea developed. During the development of the ocular symptoms, fever and other general symptoms (headache and bachache) appeared. The virus was recovered from conjunctival washings by culture on embryonated chick eggs; and a definite antibody response of the patient's serum was demonstrated. Aureomycin borate drops were used for instillation into one eye, and penicillin drops into the other eye, but neither had any apparent therapeutic effect, and the virus was recovered from both eyes after treatment. A review of the literature shows 30 other cases of conjunctivitis due to infection with the Newcastle virus reported and 2 other cases have been reported to the authors; with their own case, this makes a total of 33 cases. In 9 of these cases the infection occurred in the laboratory; in 19 cases in "kitchen personnel." In most of these reported cases, the study of the virus and immunologic aspects have, however, been incomplete. All the cases have been characterized by acute granular conjunctivitis, with scanty secretions (as in the authors' case); this is sometimes accompanied by preauricular adenitis and sometimes by fever and other systemic symptoms. The authors' case is the only one so far reported with any corneal involvement. Acute catarrhal conjunctivitis and acute follicular conjunctivitis of various types can be differentiated from the conjunctivitis due to the Newcastle virus, but the authors consider it possible that many cases diagnosed as superficial punctate keratitis may have been cases of Newcastle virus infection; and also that the type of conjunctivitis described by Patton and Gifford in 1921 as "agricultural conjunctivitis" may have been due in some cases to infection with the Newcastle virus of fowls.

COMMENT

The importance of virus infections is a recent development and owing to the difficulty in identifying the infecting agent, there are many elements of uncertainty. The pooling of laboratory study and clinical experience should do much to put the treatment on a practical basis.

R.I.L.

Fixation of a Corneal Graft by an Acrylic Splint

H. B. Stallard *(British Medical Journal,* 2:1034, Nov. 4, 1950) describes an acrylic splint used for the fixation of a corneal graft. The splint is shaped to conform to the curvature of the anterior surface of the cornea; and has four flanges extending from its edge, each of which is notched to hold the suture that anchors the flange to the cornea. With the aid of a Pittar's marking-ring a trephine incision is made in the corneal epithelium where the disk of opaque cornea is to be removed, and the trephine incision is marked with fluorescein, so that it can be easily seen through the transparent acrylic. The acrylic splint is then placed on the cornea

with the flanges in the 12 to 6 o'clock and the 9 to 3 o'clock meridian. The sites of the notches on the flanges are marked on the cornea with dots of gentian violet. The acrylic splint is removed, and sutures placed through half the thickness of the cornea at these sites. The "arms of these sutures are secured to the head towel. The opeque cornea is removed, the corneal graft is placed and the acrylic splint fitted over it so that the notches of the flanges are in line with the sutures. The sutures are then tied in the notches, but the needles are kept on the ends of the sutures, and the sutures are carried through the limbal conjunctiva. When the sutures are tied, the ends are left long, so that pairs of these are brought obliquely across the splint and tied. While one or two of the conjunctival sutures may cut out before the tenth day, the corneal sutures hold well, and the splint is removed on the tenth day. In the 7 cases in which this method has been used, there has been some postoperative conjunctival irritation, but the graft has been retained "in perfect coaptation" and has been clear.

COMMENT

Corneal transplant is one of the triumphs of modern ophthalmology. Sensational reports in the newspapers and by some of those in charge of the publicity engaged in raising money for research, etc., have given the public glorified impressions of results which are incompatible with the difficulties and limitations inherent in these cases. The public should realize that these patients were unable to get about or do anything until this procedure was developed. The percentage of cases regaining useful vision is surprising to the reasonable observer.

R.I.L.

Goniopuncture — A New Filtering Operation for Glaucoma: Preliminary

H. G. Scheie *(A. M. A. Archives of Ophthalmology,* 44:761, Dec. 1950) describes a new filtering operation for glaucoma—goniopuncture. In this operation, the tip of the specially devised knife is drawn across the anterior chamber as in the usual goniotomy operation; and a counterpuncture is made through the trabecular region of the corneoscleral wall into the subconjunctival space. This establishes a permanent fistula, if the operation is successful, which provides "subconjunctival drainage of aqueous humor." This operation has been done on 16 eyes for glaucoma. In 6 eyes, there was chronic simple glaucoma of the wide angle type; in one eye, glaucoma capsulare; in 4 eyes juvenile glaucoma, and in 5, congenital glaucoma. This operation failed to give permanent relief from tension in the 6 eyes with chronic simple glaucoma and the eye with glaucoma capsulare, but the tension was successfully controlled in the 4 eyes with juvenile glaucoma and in 3 of the 5 eyes with congenital glaucoma. In the cases of juvenile glaucoma, the follow-up period varies from nine months to approximately one and a half years. In one of these cases in which both eyes were affected, there was lowered visual acuity and almost complete glaucoma cups before operation. In the cases of congenital glaucoma, the follow-up period is only six months, so that final results cannot be determined, but in one of these eyes in which goniopuncture has so far controlled the tension, a previous goniotomy failed to do so. The true value of goniopuncture cannot be adequately determined as yet because of the small number of eyes operated on and the relatively short follow-up period. However, the author's experience with this operation leads him to conclude that the operation "offers promise" in the treatment of juvenile and congenital glaucoma.

COMMENT

This is a new angle of the operation for congenital hydrophthalmus. Previous treatments of the glaucoma of infancy have not been satisfactory at all and the most favorable cases eventually became blind in the second decade. Dr. Barkan's reports have started the move to apply operations upon the angle of the chamber from within. Dr. Scheie offers a wider application of the original idea which is welcome indeed.

R.I.L.

PUBLIC HEALTH, INDUSTRIAL MEDICINE AND SOCIAL HYGIENE

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Prolonged Survival of Human Poliomyelitis Virus in Experimentally Infected River Water

A. J. Rhodes and associates *(Canadian Journal of Public Health*, 41: 146, April 1950) reports experiments with a strain of poliomyelitis virus isolated from the stool of a child with paralytic poliomyelitis and of proved virulence for rhesus monkeys. This stool was added to a specimen of river water in a glass container (22 Gm. of stool in 4,000 ml. of water); the container was stored at a temperature of + 4° C, and was exposed to light or to room temperature only when conveyed to the laboratory for sampling on the 29th, 61st, 98th and 188th day. The material for sampling was obtained by ultracentrifugation; the deposit was treated with ether and antibiotics (to destroy any contaminating bacteria), and inoculated into monkeys intracerebrally. All tests were positive, and the last test (at 188 days) showed no recognizable diminution in the amount of effective virus present as compared with earlier tests. It is suggested that the use of the high-speed contrifuge employed in these studies is an excellent method for examining water samples in "field" studies. The long survival of poliomyelitis in river water, as demonstrated by these experiments, appears to be of epidemiological significance.

COMMENT

Poliomyelitis virus is a hardy virus which can survive under physical and chemical conditions which would destroy other micro-organisms. Melnick points out that it can be preserved for years in the frozen state (—20° C. or —70° C.) or in 50 per cent buffered glycerol at ordinary icebox temperature. It is not affected in the pH range of 4 to 10 or by 1 per cent phenol. It is more resistant to chlorine than most bacteria.

E.G.B.

Q Fever in a Wool and Hair Processing Plant

M. M. Sigel, T. F. McNair Scott and associates *(American Journal of Public Health*. 40:524, May 1950) report an outbreak of Q fever among workers in a wool processing plant. The first patient was admitted to a Philadelphia hospital in February 1948; routine tests for viral and rickettsial pneumonias were done on serum specimens from this patient and the diagnosis of Q fever was established. Further investigation at the plant where this man was employed showed that in the first three months of 1948, 30 employees had been absent from work because of respiratory illness, usually called "flu" or "grippe"—a high incidence of illness for this plant. Serum specimens were obtained from 152 of the 186 employees and tested with the Q fever antigen; 68 gave positive reactions, and in 39, titers were 1:64 or higher. As the illness among the workers was generally mild, only 2 of them (including the one noted above) were admitted to a hospital, and only a few were seen by physicians. The clinical data on these cases, therefore, are incomplete, but the symptoms most frequently noted corresponded with the most common symptoms observed in outbreaks of Q fever. Cases of illness

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were most common in the dyeing and warehouse departments, where raw wool was handled, and among mechanics, who worked in all departments. In the United States, reports of Q fever indicate association with cattle most frequently, but cases associated with contact with sheep and goats have also been reported. In the outbreaks occurring in the wool processing plant, the disease was apparently caused by inhalation of infected material by workers who handled raw wool and goat hair. Wool processing should, therefore, be recognized as an occupation involving risk of Q fever infection.

COMMENT

Q fever is an occupational hazard not only of persons involved in wool and hair processing, but cases have been reported in abattoir and packing house personnel, dairy workers, rendering plant and hide employees and laboratory workers. The disease was recently diagnosed in laundry workers who handled unsterilized laboratory apparel used by persons working with the organism.

E.G.B.

The Clinical Application of Quantitative Reports of Serologic Tests for Syphilis

F. W. Lynch *(Minnesota Medicine,* 33:579, June 1950) states that the Serological Laboratories of the Minnesota Department of Health will soon report quantitative results of tests for syphilis with serial dilutions of specimens tested with the VDRL antigen. A study of the significance of such quantitative reports has been made on specimens submitted to the Minnesota Department of Health from October 1, 1949 to April 1, 1950. From this study the author concluded that positive reactions in the higher dilutions indicate that the test is specific and does not represent a false positive. Quantitative tests are not an indication of the severity of syphilis, i. e., a positive reaction in 1:64 dilution does not indicate "twice as much syphilis" as a positive reaction in 1:32 dilution. Steadily rising titers have been found in early acquired and early congenital syphilis when untreated, even though in the case of congenital syphilis, the mother was treated during pregnancy. There may also be a transitory increase in the titer immediately after treatment has been begun; this is a serological Herxheimer reaction. A gradual fall in titer should result from treatment, especially from modern intensive treatment of early syphilis. The greatest value of the qantitative tests is that they indicate a serorelapse promptly before a clinical infectious relapse occurs. This is indicated by progressive increase in titer following a favorable response to treatment in early syphilis. Early recognition if this serorelapse makes institution of treatment possible before the patient becomes infectious, thus protecting family and other contacts. Another possible advantage of quantitative serologic tests that was not observed in this series is noted by the author. When gonorrhea and syphilis are acquired at the same time and the gonorrhea is treated promptly with penicillin before the syphilis is demonstrable serologically or clinically, serologic tests, frequently repeated, aid in the early diagnosis of the syphilitic infection, and progressively rising quantitative titers would be of "obvious significance" in such cases.

COMMENT

There is no question of the public health significance of any laboratory procedure which can help detect a serological relapse before clinical manifestations and infectivity appear. Prompt treatment of such individuals is an important step in the control of syphilis.

E.G.B.

Histoplasmosis: Animal Reservoirs and Other Sources in Nature of the Pathogenic Fungus, Histoplasma

C. W. Emmons *(American Journal of Public Health,* 40:436, April 1950) notes that the question of the geographic distribution of histoplasmosis is an important one. Cases of proved fatal histoplasmosis have been reported from many parts

of the world, indicating that the disease is widely distributed. In the United States, skin tests with histoplasmin have been made in patients with non-tuberculous pulmonary calcification; if a positive reaction to this test is considered to indicate healed histoplasmosis, the results indicate a relatively restricted area in the United States in which histoplasmosis is prevalent. Recent studies have shown that histoplasmosis occurs in certain animals, and suggests the use of animal surveys in the study of the geographic distribution of the disease. In previous studies, *Histoplasma capsulatum* was isolated from mice, rats, spotted skunks, cats and dogs. In more recent studies in Virginia and Georgia, this fungus has been isolated from the same species of animals and also in one instance from an opossum. Among wild animals, rats and spotted skunks have been found to be most frequently infected; and among domestic animals, the cat is most frequently infected with histoplasmosis. In the localities studied the distribution of infected rats has been found to vary to a considerable extent; this may have been due to inadequate sampling, or it may represent a wide variation of the distribution of *Histoplasma* in nature. *Histoplasma capsulatum* has also been isolated from the soil of 6 farms where infected rats were captured. The significance of the "saprophytic existence" of *H. capsulatum* in soil is not as yet determined. But these studies indicate, in the author's opinion, that the examination of cats and rats for *Histoplasma* infection is of value in determining the geograpical distribution of histoplasmosis.

COMMENT

Our knowledge of the epidemiology of histoplasmosis at the present time is incomplete. The incubation period, source of infection, mode of transmission and period of communicability, as well as the preventive measures to be taken against the disease are as yet unknown. Any contribution to our knowledge of this fungus infection is a step forward.

E.G.B.

Early Detection of Benzene Toxicity

Lanson Blaney *(ndustrial Medicine and Surgery,* 19:227, May 1950) describes the methods employed for early detection and prevention of benzene poisoning in a plant manufacturing polyvinyl plastics in which large amounts of benzene are used. While the process employed is "almost entirely" a closed process, there are nevertheless possibilities of exposure of benzene in certain processes and from leaks that may occur. Therefore the benzene content of air samples in areas where exposure is likely to occur is determined each week. Where air contamination with benzene is known to occur, workers are required to wear masks. Urine sulfate ratio determinations are made every three weeks, samples being collected at the end of the last working day of the week; with sufficient exposure to benzene the inorganic sulfate of the urine falls below 80 per cent of the total sulfates. In the selection of new employees, careful attention is paid to a history of chronic bleeding, anemia, parasitic diseases and allergy. The physical examination includes a complete blood count. Workers are reexamined every six months, including blood counts, to determine if any signs of early benzene poisoning are present. With these precautions only 2 men have had to be removed permanently from exposure to benzene because of progressively falling red and white blood cell count with a 6 per cent eosinophilia in one case. The blood count has become normal in both cases. Another employee, a young man, was temporarily removed from exposure, because of an eosinophilia of 20 per cent; in three months the eosinophil count fell to 3 per cent. Concentrations of benzene in the air samples from the plant have been below the maximum of 35 ppm. allowed by the Commonwealth of Massachusetts, since 1948.

COMMENT

This is an interesting account of the control of a very toxic organic chemical commonly used

in industry. The use of a "closed system", masks for workers where air contamination unavoidably exists, and the use of urine sulfate ratio determinations for the detection of benzene poisoning are good examples of proper industrial hygiene methods for the control of such chemical compounds. The low instance of benzene poisoning and low concentrations (less than 35 p.p.m.) of benzene found in the air samples taken in the plant indicate the efficiency of these control methods.

E.G.B.

Thiocyanate Effect Following Industrial Cyanide Exposure

H. L. Hardy and associates *(New England Journal of Medicine,* 242:968, June 22, 1950) report 2 cases in which changes in the thyroid characteistic of the effect of thiocyanate developed during exposure to cyanide salts in case-hardening processes. In the first case, the general symptoms associated with the thyroid enlargement closely resembled those reported as due to toxic effects of thiocyanates employed in the treatment of hypertension—vertigo, headache and great weakness. In the second case, the general symptoms were less severe, chiefly headaches and fatigability. A review of other cases reported of chronic cyanide poisoning in industrial workers and a study of thiocyanate excretion in workers exposed to cyanide in case-hardening processes, suggest that so-called chronic cyanide poisoning from industrial exposure may, in reality, have been due to thiocyanate intoxication resulting from the formation of thiocyanate in the body in the process of detoxifying the cyanide radical and inability to excrete the thiocyanate formed, or excessive thiocyanate formation due to "excessive cyanide exposure."

COMMENT

The authors mentioned exposure to cyanide salts in case-hardening processes. It is assumed they meant inhalation of hydrocyanic acid gas from cyanide heat treating units, using sodium or potassium cyanide salts. These units should be properly enclosed with suitable hoods and the exhaust ducts from the hoods should be provided with mechanical exhaust ventilation to assure the removal of the hydrocyanic acid gas. The concentration of the hydrocyanic acid gas should be maintained at less than 20 p.p.m. in the atmosphere.

E.G.B.

✚

Treatment of Neurosyphilis

A comparison of the results obtained with two treatment schedules in neurosyphilis indicated that the addition of arsenicals and bismuth to a schedule of penicillin did not enhance the results. The first schedule (0-60-0) consisted of daily intramuscular injections of 400,000 units of penicillin in peanut oil-beeswax for 15 consecutive days. The second schedule (8-60-5) consisted of the intravenous administration of 0.06 Gm. of Mapharsen on the odd days of treatment and 1½ cc. of bismuth subsalicylate in oil given intramuscularly on the 1st, 3rd, 5th, 10th, and 15th days, in addition to the penicillin.

Johnwick, writing in the *J. Ven. Dis. Inform.* [*31*:303 (Dec. 1950)], stated that 619 patients were treated on the 0-60-0 schedule and 260 patients on the 8-60-5 schedule. Of the former only 16 had to be retreated and only 21 of the latter. The average cerebrospinal fluid cell count was slightly higher among the patients treated by the 8-60-5 schedule. After treatment by either schedule among the patients not retreated, the cell counts fell to normal and remained so for 18 months. The results of the quantitative Kahn serological tests at the 6-, 12-, and 18-month follow-up periods were practically the same among the patients not re-treated in both treatment schedules.

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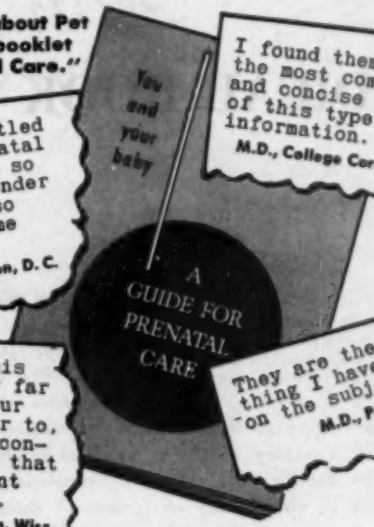

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MEDICAL BOOK NEWS

Public Health

The Chicago-Cook County Health Survey. Conducted by the United States Public Health Service. New York, Columbia University Pr., [c. 1949]. 8vo. 1,317 pages, illustrated. Cloth, $15.00.

The Chicago-Cook County Health Survey is the result of a survey of Cook County conducted by the United States Public Health Service in which many official and voluntary agencies participated. It is a comprehensive and voluminous appraisal of the health facilities of Chicago and the rest of the county.

The survey is divided into three sections dealing with Environmental Sanitation, Preventive Medical Services and Medical Care. Each health activity, including the present facilities, is analyzed in detail and recommendations are made for the improvement of the particular service.

Cook County comprises the City of Chicago, having nine townships, seven cities or villages and eighty-two other municipalities. For a comprehensive and effective health service, the investigators recommend that Health Departments outside of Chicago join the Cook County Department of Public Health Eventually five district health units are to be established.

The Chicago Board of Health is to be reorganized and it should appoint the health officer. The services of the Department are to be divided into three branches, Preventive Medicine, Public Health Engineering and District Health Service, each under the jurisdiction of a deputy director. The Health Department now has no control of tuberculosis, strange as it may seem, environmental sanitation or industrial hygiene, and the survey therefore recommends that the responsibilities for each of these activities shall be vested in the Health Department. A plan is also proposed that the City be divided into twenty health districts of approximately 200,000 population each, and that the services be decentralized. It is interesting that the survey recommends among others, decentralization of the control of communicable diseases, adult hygiene, food and environmental sanitation.

In the section on Medical Care, it is proposed that at least 3,000 hospital beds for general care and 12,000 hospital beds for the chronic, mentally ill and tuberculous be added. Only hospitals having more than 100 beds shall be encouraged, and those hospitals now having fewer than that number should affiliate with larger institutions. Hospitals and out-patient departments shall initiate routine chest X-rays and serology tests for syphilis on all new admissions, and the institutions shall cooperate with public health agencies in the extension of their program for pre-

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—Continued from page 250

ventive medicine and public health education.

The survey is illustrated with photographs and graphs, has 178 tables and an extensive index.

JACOB H. LANDES

Operative Surgery

Operative Surgery. By Frederick C. Hill, M.D. New York, Oxford University Press [c. 1949]. 8vo. 698 pages, illustrated. Cloth, $12.75.

This single volume of 698 pages with 255 illustrations appears as the first edition of a work on Operative Surgery.

Preoperative diagnosis, the various indications for surgery, and the subject of anesthesia, are not discussed in this book. Pathology is mentioned only when necessary to make a differential diagnosis. This is really a recitation of the author's own experience based upon an excellent background of training and upon extensive clinical experience. There are thirty chapters beginning with Preoperative Treatment and including chapters on Sutures, Ligatures, and Instruments, The Skin, The Mouth, Tongue and Salivary Glands, the Neck, the Thorax, the Abdomen including the Retroperitoneal spaces, the Female Generative Organs, and the Urinary Tract, Bones and Joints, Blood Vessels, the Extremities, and terminating with a chapter on Post-operative Treatment.

This book is particularly recommended for House Officers during their training as internes and residents, the general practitioners, and the younger surgeons.

MERRILL N. FOOTE

Pathology

Pathologic Physiology: Mechanisms of Disease. Edited by William A. Sodeman, M.D. Philadelphia, W. B. Saunders Co., [c. 1950]. 8vo. 808 pages, illustrated. Cloth, $11.50.

William Sodeman of Tulane and a large number of competent associates have written one of the most important books to appear in this country. Some recent monographs and textbooks have included first rate accounts of the principles underlying the mechanisms of certain diseases, but in no other book have such discussions been done so well and so completely. The last such volume was Krehl, long since outdated, and Sodeman will, therefore, find a wide and appreciative audience. It belongs in the library of every medical student and every doctor no matter what his specialty.

MILTON PLOTZ

Italian Medicine

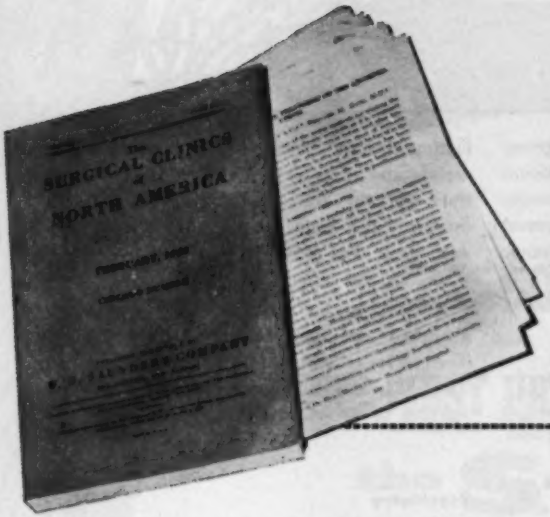
Alcmeone. In Una Conferenza di Giovanni Arcieri. (New York, Arcieri). 8vo. 95 pages, illustrated.

This excellent volume, written in exquisite Italian, contains several lectures. The most important one has the same title as the book, "Alcmeone in Una Conferenza di Giovanni Arcieri." The lecture was delivered in honor of the ancient Alcmeone of Crotone whom Professor Arcieri calls the father of positive medicine (VI century B.C.)

In addition to the lecture of Professor Arcieri, there are several discourses by such distinguished personalities as Professor David Giordano and Professor Bellizzi. To be praised by a dignitary such as Professor Giordano is an honor reserved for only the most deserving men of medicine. Professor Arcieri should rejoice and be truly proud of the excellent compliment paid to him by Professor Giordano, the distinguished medical historian.

Noted in the concluding pages of this volume is the desire to organize a school of medicine at Crotone. This thought brings to mind the fact that there is a plan to found an international school of medicine in Rome. Would it not be mutually beneficial if those interested in the

—Continued on page 254



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by Stein, I. F. and
Kaye, B. M.: Su. Clin.
North Am. 30:259, 1950.

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—Continued from page 252

Crotone school would unite with the group in Rome? Perhaps the International School would be named the Alcmeone School of Medicine in acknowledgement of the support given it by the Crotone group.

BERNARD J. FICARRA

Antibiotics

Penicillin. Its Practical Application. Under the General Editorship of Professor Sir Alexander Fleming, M.B. 2nd Edition. St. Louis, C. V. Mosby Co., [c. 1950]. 8vo. 491 pages, illustrated. Cloth, $7.00.

"There are more things in Heaven and Earth, Horatio, Than are dreamt of in your philosophy"—Hamlet-Act I, Scene 5-

When the omniscient and clairvoyant Shakespeare put these words into Hamlet's mouth he must have foreseen these hectic days of ours. For Fleming has taken "these things of and in the Earth", these noisome and formerly despised "molds", and transformed them into the greatest fighting machine in our war against disease and death, that has yet appeared on the world's medical horizon.

They have revolutionized our pharmacology and therapeusis. They have transformed us doctors from more or less helpless onlookers in pneumonia and the various septicaemias into real fighting men, capable of delivering routing and staggering blows to our formerly implacable disease foes. And all because this man and his co-workers had the vision to ask the questions, "How, Why, What and When" when the "lucky accident" of the "spoiled Petrie dishes" came to their attention.

Read this book and get a thrill and an education. It has given us a newer and more confident surgical technique, traumatic surgery is a more comprehensive and bolder field, we amputate less, and restore more, particularly in battle casualties. Gas gangrene scares us less.

It is "the drug of choice" in the venereal field, and promises even better and more lasting control than any of the old heavy metals and arsenicals. It is more speedy, puts out the fire without wrecking the building, the least toxic of any, and the only drug that kills the invaders without wrecking the leucocytes.

A book to be read, carefully re-read, absorbed and then put to practical use. The various "mycins" are also learnedly discussed, and catalogued into their proper spheres of action and use.

THOMAS F. NEVINS

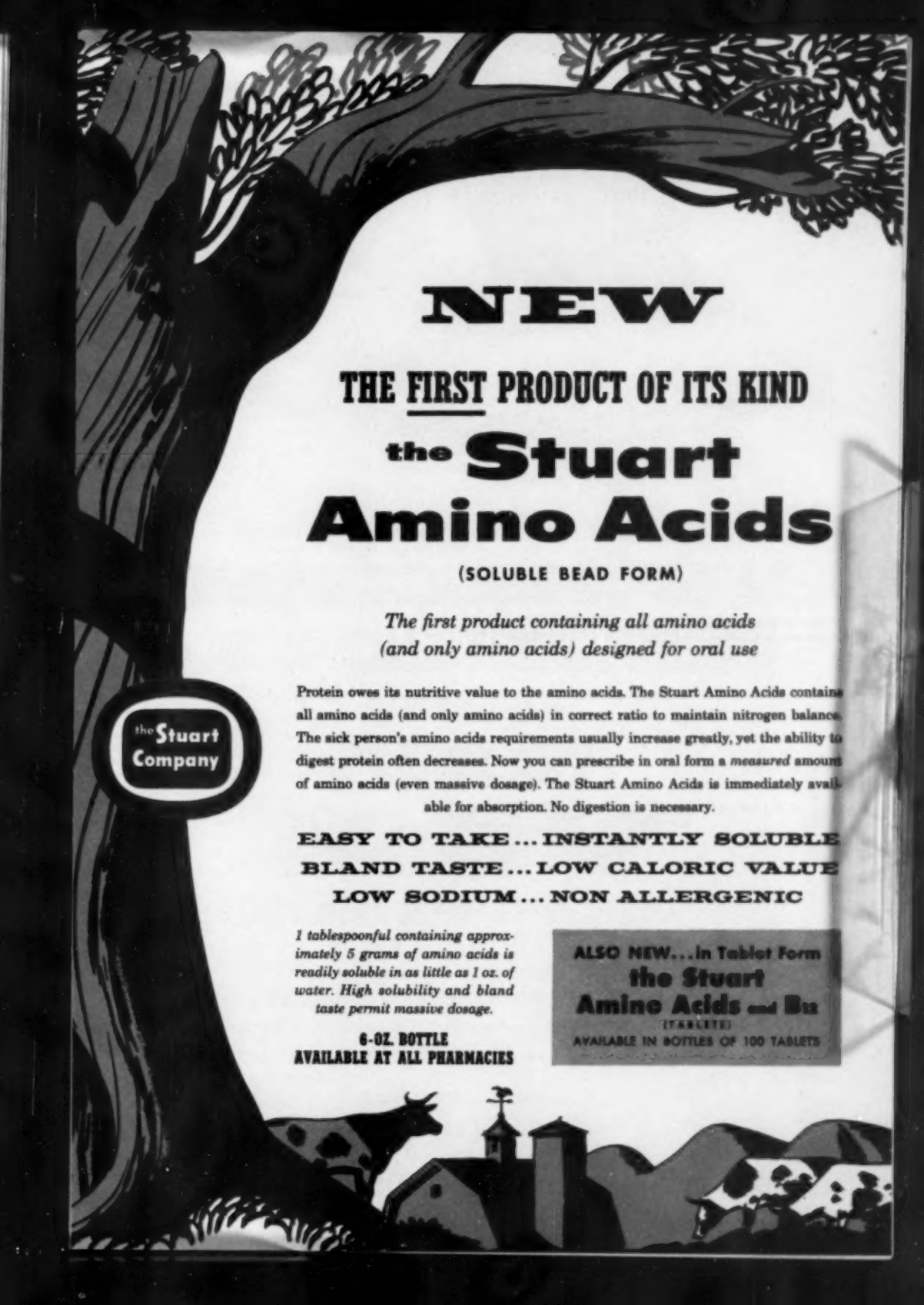
Psychiatry

The Mask of Sanity. An Attempt to Clarify Some Issues About the So-Called Psychopathic Personality. By Hervey Cleckley, M.D. 2nd Edition. St. Louis, C. V. Mosby Co., [c. 1950]. 8vo. 569 pages. Cloth, $6.50

This second edition stems from an additional decade of experience with psychopaths—female, adolescent, and those never admitted to a psychiatric hospital—in contrast to the first edition which was based primarily on experience with adult males who were institutionalized. Keen interest has been shown in this subject not only by the professional workers in the field of psychiatry, criminology, social work, and allied fields, but also by the frequent desperate pleadings of immediate relatives and friends who have struggled, usually unsuccessfully, with the disastrous impacts and results of this challenging problem.

This volume is well documented with references which the serious student will want to pursue. They point up the obvious conclusion that the author has caused us all to be indebted to him for his painstaking researches into a most perplexing problem which would discourage many lacking the melioristic attitude of the author who has so commendably enjoined the cooperation of numerous colleagues.

FREDERICK L. PATRY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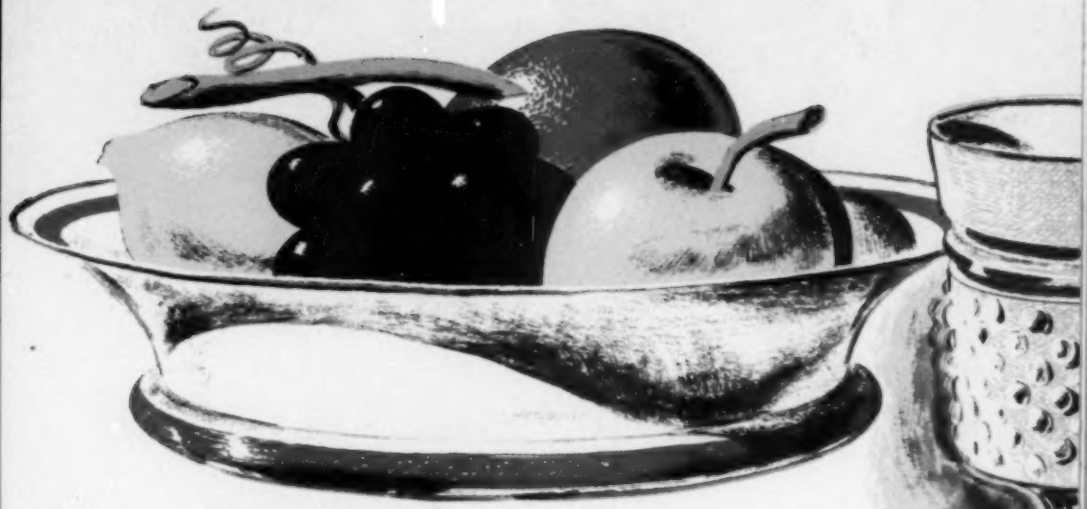

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THE COMMON COLD AND LAXATIVES

Should laxatives be employed in the treatment of the common cold?

Opinions are divided on the subject. Anent the therapeutic approach, the old adage, reiterated by a British physician, after lengthy research on the common cold, still applies: "The untreated cold will last about seven days, while with careful treatment it can be cured in a week."

Obviously, therapy must concern itself principally with providing physical comfort for the patient, and with the prevention of complications. Almost every physician has his own preferred method in attaining these ends. Many physicians, and their number is considerable, hold to the belief that keeping the emunctories freely functioning contributes to the mitigation of the intensity of the symptoms in colds. Furthermore, as a result of slowing down the usual activity, and medication with codeine and constipating drugs, there is a tendency to bowel sluggishness. Moderate laxation appears desirable, and it also aids in evacuating the germ-laden mucus that is unavoidably swallowed during a cold.

That saline cathartics are not suitable when other medication is being used, was shown by Macht and Finesilver[1]. They found by laboratory experiments and clinical study that a saline cathartic prevents the absorption, and consequently the effect, of other drugs taken simultaneously or quite some time later. The debilitating effect that follows a saline purge is also far from desirable when the patient needs to conserve his recuperative powers. There may be more than a modicum of truth in the philosophy of the physician, who facetiously stated that he saw no merit in making an effort to transform his "cold" cases into dysentery cases[2].

It is generally agreed that the use of a harsh cathartic is not desirable during a cold. Purgatives are certainly contraindicated. On the other hand, the prevention of constipation when present, and its prompt relief, may be of decisive importance for the welfare of the patient. Because of its "moderate" yet thorough laxative action, Ex-Lax is especially suitable for use under the circumstances. Its laxative ingredient, phenolphthalein, is compatible with other medication, including the sulfonamides and the antibiotics.

The phenolphthalein used in Ex-Lax is subjected to exacting chemical control and to biological standardization to maintain uniform efficiency. Ex-Lax is a palatable, gently acting, convenient laxative that may be taken at any time during the day without causing sudden, embarrassing urgency; when taken at bedtime, sleep is not disturbed. That phenolphthalein is a safe laxative in a wide range of dosage, for use at all ages, has been proved by extensive pharmacological investigations and clinical experience, reported in the recent medical literature[3, 4, 5, 6].

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1. D. I. Macht and E. M. Finesilver: Bull. Johns Hopkins Hosp. 33:330, 1922.
2. E. O. Harrold: J.A.M.A. 88:439, 1927.
3. B. Fantus and J. M. Dyniewicz: J.A.M.A. 108:439, 1937.
4. F. Steigmann, R. D. Barnard, and J. M. Dyniewicz: Am. J. Med. Sciences 196:673, 1938.
5. M. L. Blatt, F. Steigmann, and J. M. Dyniewicz: J. Pediat. 22:719, 1943.
6. E. W. Abramowitz: Am. J. Digest. Dis. 17:79, 1950.

MODERN THERAPEUTICS

Chloramphenicol in the Treatment of Pertussis

Chloramphenicol was administered in a gum emulsion syrup in an initial dose of 50 mg. per Kg. to 25 patients with early cases of whooping cough. This dose was followed by 50 mg. per Kg. per day divided into 6-hourly doses and was continued for about one week or until the paroxysms were mild or broken up. Then one half this dose was given for another 7 to 10 days. According to Khalil and Abdin in *Lancet* (*259*:307(Aug. 19, 1950)) 2 of 9 patients in the catarrhal stage ceased to cough within 4 days, 3 continued to have a cold-like cough for 1 to 2 weeks, 3 developed a mild spasmodic cough which lasted for 4 to 6 days and then a mild bronchitis like cough for 1 to 2 weeks, and the last patient in this group developed a severe spasmodic cough lasting for 17 days. In the latter case diarrhea developed for more than a week at the beginning of treament and it was felt that this had a significant bearing on the poor results in this case. Of the other 16 patients who were in the paroxysmal stage 15 were improved as to severity and frequency of the paroxysms within 9 to 17 days and they then had a mild bronchitis like cough for another 1 to 2 weeks.

Little trouble was encountered with vomiting provided the drug was taken on an empty stomach.

Therapeutic Use of Aureomycin in Syphilis

Negative darkfield examinations of specimens taken from the lesions of 10 patients with primary or secondary syphilis were obtained in an average of 23.3 hours when an oral dose of 240 mg. of aureomycin per Kg. per day was given and in 28 to 30 hours when 30 to 120 mg. per Kg. per day was given.

In an evaluation of the seronegativity results in 108 patients under varying schedules of aureomycin. Olansky *et al*, writing in *Am. J. Syph. Gonor. Ven. Dis.* (34:436(Sept. 1950)), reported that after 6 to 7 months the group receiving 60 mg. of aureomycin per Kg. per day for 8 days had the highest seronegativity (92.3 per cent). Doses of 30 or 120 mg. per Kg. per day for 4 days or less or doses of less than 60 mg. per Kg. per day for 8 to 9 days did not give as high a rate of seronegativity. All 3 of the patients receiving but one day of treatment with 240 mg. per Kg. had relapsed within 5 months. The authors stated that the lesions healed more rapidly, even more rapidly than with penicillin in some cases. Improvement was also obtained in patients with gonorrheal urethritis, chancroidal lesions, and granuloma inguinale. Doses of 30 mg. per Kg. per day for 8 days to syphilitic mothers prevented the passage of the infection to their offsprings. Moderate to severe nausea and vomiting appeared in 27 of the patients. Other less prevalent side effects were diarrhea, somnolence, avitaminosis and a mild Jarisch-Herxheimer reaction.

Scarlet Fever Therapy

A comparison of treament in 255 patients with scarlet fever was made by Weinstein and Potsubay in *J. Pediat.* (37:291(Sept. 1950)). The 102 patients in group I received symptomatic treatment consisting of bed rest, throat irrigations, etc. The 103 patients in group II received one intramuscular injection of 20 to 60 cc. of a gamma globulin solution having a potency of 30 to 80 anti-erythrogenic units per cc. The 50 patients in

—Continued on page 58a

MODERN THERAPEUTICS

—Continued from page 56a

group III received 15,000 units of penicillin intramuscularly every 3 hours for 10 days.

The temperature returned to normal within 4 days in 70.5 per cent of group I, in 67.9 per cent of group II and in 94.0 per cent of group III. Pharyngial pain lasted an average of 6 days in groups I and II but only 1 to 3 days in group III. The rash disappeared in 24 to 36 hours in group II but lasted for 4½ days in groups I and III. The treatment in group III produced a return to normal of the W. B. C. and a disappearance of *Streptococcus pyogenes* from the pharynx of 96 per cent of the patients within 7 days but groups I and II lagged considerably behind. There was no suppurative sequelae following treatment in group III but the treatment in group II seemed to have no effect on the development of suppurative complications nor sequelae such as rheumatic fever.

Polymyxin B in Meningitis Due To Pseudomonas Aeruginosa

A febrile reaction associated with backache, headache and pain between the shoulders followed appendectomy in a 17 year old patient. Spinal puncture revealed a few cells but not identifiable organisms. Treatment with penicillin, streptomycin, sulfadiazine, and aureomycin brought about no improvement. Later, with no clinical improvement from the continued administration of aureomycin, sulfadiazine and penicillin and the introduction of dihydrostreptomycin, *Ps. aeruginosa* was cultured from the cerebrospinal fluid. Consequently, Hayes and Yow reported in *Am.*

—Continued on page 60a

A MAJOR RESPONSE

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—Continued from page 58a

J. Med. Sci. (220:633(Dec. 1950)) that polymyxin B was started in a dose of 80 mg. intramuscularly every 6 hours with 2 mg. intrathecally every 12 hours. The intramuscular dose was later reduced to 40 mg. every 4 hours. The cerebrospinal fluid became sterile the day after polymyxin was started and remained so with further treatment. Gradual clinical improvement occurred. Considerable nausea and vomiting accompanied the administration of polymyxin. Generalized pruritis was controlled with Pyribenzamine. The authors concluded that polymyxin is superior to any other known drug in the treatment of meningitis due to *Ps. aeruginosa* but that dihydrostreptomycin and sulfadiazine should be tried first because of the toxicity of polymyxin B.

The Therapeutic Use of Thiamine Hydrochloride in Old Age

Thiamine hydrochloride was given orally in doses of 5 mg. a day for 15 weeks to 20 patients varying in age from 54 to 101 years. The thiamine blood levels before treatment were less than 2 micrograms per cent but they were from 4 to 5 micrograms per cent within 2 weeks, and they had returned to pretreatment levels within 6 months after treatment was discontinued. Edema of the lower extremities was present in 15 of the patients but it was not associated with circulatory failure, hypoproteinemia, or other clinical symptoms. The edema had disappeared in 10 of the patients within 3 weeks of therapy and persisted in 2 after 15 weeks, but the edema had reappeared in 10 within 6 months after therapy was discontinued.

Chieffi and Kirk reported in *J. Gerontol. (5*:326(Oct. 1950)) that a number of other symptoms responded to this therapy but recurred again after therapy was dis-

continued. Among these conditions were tenderness of the valves of the legs, fissures of the tongue, and redness of the tongue. In all 20 patients appetite increased soon after therapy was instituted. The authors reported that the mean increase in weight during the 15 weeks of therapy was 2 Kg.

Curare Used with Cyclopropane

Cyclopropane with curare was administered in 100 deliveries, usually for not more than 5 minutes of actual anesthesia, including 3 breech deliveries. The cyclopropane was administered and then terminated with the injection of 80 units of curare. If relaxation was not obtained 20 more units of curare were given. Oxygen was continued throughout the delivery, forced oxygen being required of one patient because of respiratory depression. McMann, writing in *Am. J. Obst. Gynec. (60*:1366 (Dec. 1950)), stated that relaxation was remarkable with the exception of 2 patients in whom there was extensive scar tissue from previous lacerations. No baby showed any effects from the drug and more of them cried immediately upon delivery than was usual.

Procaine in Rheumatic Diseases

Selected cases of brachial and sciatic arthritis, fibrositis, bursitis and neuritis were treated with a 1 or 2 per cent aqueous solution of procaine hydrochloride by weekly, semi-weekly, or even daily injections of 5 to 30 cc. of solution. Local injections were given in tender spots at the maximum site of pain, brachial plexus blocks were used for painful shoulder conditions and brachial neuralgia, and sciatic blocks were used for primary sciatic neuritis.

By interrupting the sensory nerve impulses the procaine stopped pain, relaxed muscle spasm, permitted increased motion in the affected part, prevented atrophy of disuse and circulatory impairment, and shortened disability. When injections were

—Continued on following page

—Continued from preceding page

given repeatedly Lipkin, reporting in *J. Michigan Med. Soc. (49*:1081 (Sept. 1950)), stated that the threshold of pain was raised producing a state of analgesia which permitted a restoration of function.

Procaine sensitivity could be controlled or prevented by a barbiturate. Contraindications to the use of procaine included widespread involvement of the disease, acute inflamatory areas, advanced diabetes or cardiac disease, general debility, psychoneurosis, and known sensitivity to the drug.

The Effect of Tween 20 on Fat Metabolism

A skim milk formula containing 1.5 per cent fat was given to 13 premature infants and 2 older babies with steatorrhea. To the skim milk was added 0.12 cc. of a 20 per cent w/v solution of Tween 20 (polyoxyalkylene ether of sorbitan monolaurate) 4 times a day. The dose was gradually increased to 1 cc. 4 times a day. The mean fecal fat content was determined on 24 hour fecal specimens at 4 day intervals. Johnson, Scott, and Newman reported in *Am. J. Dis. Child. (80*: 545 (Oct. 1950)) that the Tween 20 had little effect on the fat retention in these infants.

Experience With Terramycin Hydrochloride

Terramycin hydrochloride is soluble in water at a pH of 2 or, upon the addition of sodium hydroxide to a pH of 8.5 and with the formation of the sodium salt the antibiotic is readily soluble in water. When stored at O°C. the acid solution retains its potency for about 30 days and the alkaline solution for about 7 days.

—Continued on page 64a

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with Sal Hepatica

When your patients ask about fast laxation recommend effervescent Sal Hepatica. There's no lag, no continuing discomfort while your patients wait for *this* laxative to act. Taken before the evening meal, satisfactory action is assured before bedtime, thus permitting a sound night's sleep. Taken in the morning before breakfast, laxation will usually occur within the hour.

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*Cathartic

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MODERN THERAPEUTICS

—Continued from page 62a

In vitro studies followed by *in vivo* clinical trial showed that terramycin had a low degree of toxicity and was readily absorbed from the alimentary tract to produce satisfactory levels in the serum and probably most serous cavities, and a high level in the urine and feces. The pH of the urine apparently has little effect on the results obtained. All of the common urinary pathogens are sensitive to the antibiotic with the exception of *Proteus vulgaris* and *Pseudomonas pyocyanea*. With high concentrations even the latter organism will probably effectively be eliminated, according to Linsell and Fletcher in *Brit. Med. J.* (No. 4690:1190(Nov. 25, 1950)). Striking changes in bacterial flora of the intestine and a high residual concentration in the feces showed real promise in the control necessary for intestinal surgery and in the management of intestinal infections.

When compared with aureomycin the authors found little difference with the exception of the fact that terramycin is more effective against *Ps. pyocyanea* than is aureomycin. Terramycin is also more stable in solution.

The most prominent toxic symptom was that of gastrointestinal disturbance, which occurred in 13 of 33 patients having courses lasting 5 or more days. In only one case was it necessary to discontinue the drug.

Local Application of Cortisone

The local application of cortisone acetate was used in two patients with rheumatoid arthritis associated with iritis and uveitis, two with articular disability and allergic dermatitis, and two with typical chronic psoriasis. All six of the patients had failed to respond to 3 distinct antihistaminic compounds.

—Continued on page 66a

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MODERN THERAPEUTICS

—Continued from page 64a

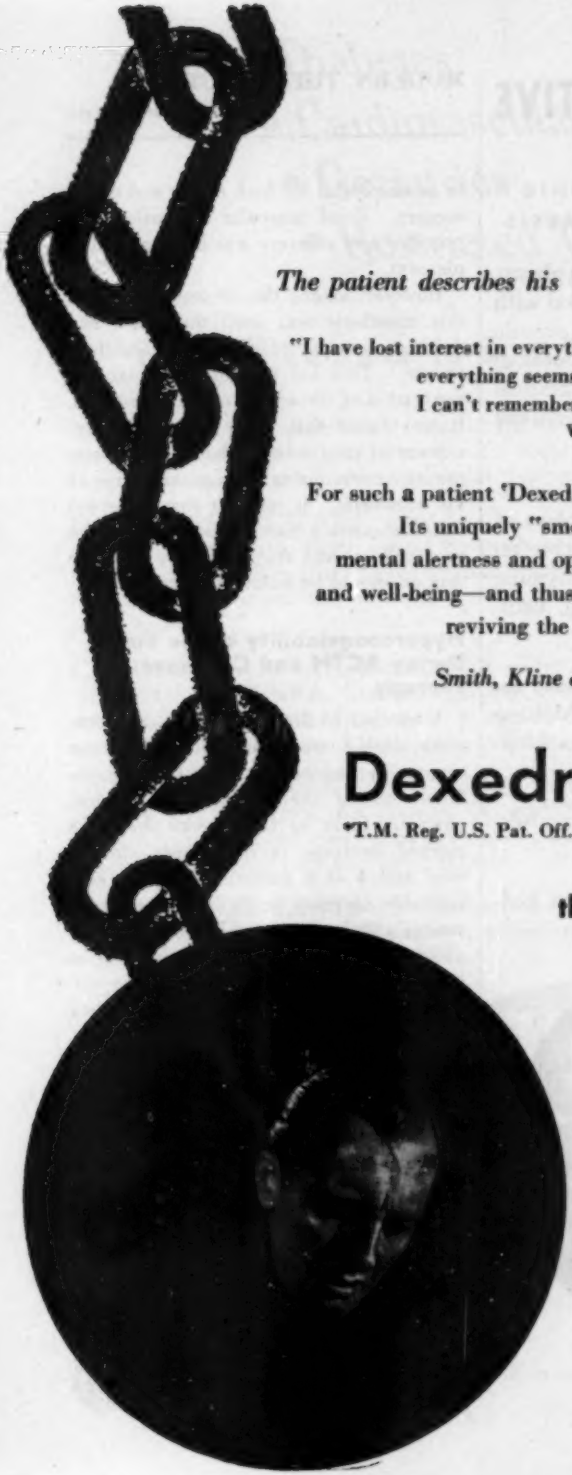
Spies and Stone stated, in *South. Med. J.* (43:871 (Oct. 1950)), that the eyes of the patients with iritis and uveitis appeared normal by the sixth day of treatment with an ophthalmic ointment containing 25 mg. of cortisone acetate per Gram. The allergic dermatitis subsided completely after 13 days of application with cortisone acetate ointment. The patients with psoriasis received 3 courses of intramuscular injections with doses of 1200 mg., 300 mg., and 375 mg. respectively. By the end of the third course (nine weeks) the lesions had cleared 70 to 95 per cent. In one case a lesion below the knee was treated with local application twice daily of an ointment containing 5 mg. of cortisone acetate per gram. After 24 days of treatment this lesion showed as much healing as had followed injections, but the untreated lesions were unchanged or showed an increase in severity.

The authors pointed out that this finding, that a single lesion could be improved without any measurable change in other lesions of the body, was of great importance. The results obtained with the patients in this series support the hypothesis that cortisone plays a fundamental role in the enzymatic processes of all cells.

Properties of Isopropyl Chloride

The use of isopropyl chloride in anesthesia was discussed by Elam and Newhouse in *Brit. Med. J.* (No. 4696:13 (Jan. 6, 1951)). The induction, using nitrous oxide-oxygen-isopropyl chloride, was pleasant for both the patient and the anesthetist and the deepest plane of anesthesia could be obtained without cough or struggle. The anesthesia seemed

—Concluded on page 68a



The patient describes his **depression:**

"I have lost interest in everything—I have no ambition any more—
everything seems futile—I feel frustrated and lonely—
I can't remember or concentrate—I am *all slowed up.*"
Washburne, A.C.: Ann. Int. Med. 32:265, 1950.

For such a patient 'Dexedrine' Sulfate is of unequalled value. Its uniquely "smooth" antidepressant effect restores mental alertness and optimism, induces a feeling of energy and well-being—and thus has the happy effect of once again reviving the patient's interest in life and living.

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*T.M. Reg. U.S. Pat. Off.

the antidepressant of choice

tablets

elixir

—Concluded from page 66a

to be successful for both major and minor surgery. Good muscular relaxation was provided and recovery was both rapid and pleasant.

However, among the 50 cases on which this anesthetic was used there was one death as a result of complete circulatory failure. This led to more thorough investigation of the effects of this substance. It was found that there was a high incidence of cardiac irregularities of a temporary nature during the administration of the anesthetic. It was felt that isopropyl chloride exerts a direct toxic action on the myocardium, and that, therefore, extreme caution should be followed in its use.

Hypercoagulability of the Blood During ACTH and Cortisone Therapy

A number of thromboembolic complications during treatment with ACTH or cortisone prompted a study of blood coagulation during therapy with these compounds. Eight of 10 patients showed a marked decrease in the venous clotting time and 4 of 6 patients showed a considerable decrease in the heparin-retarded venous clotting time. This hypercoagulability of the blood was maintained for as long as 7 to 15 days after ACTH or cortisone had been discontinued, according to Cosgriff, Diefenbach, and Yogt in *Am. J. Med.* (9:752(Dec. 1950)).

The dosage appears to be directly related to the degree of hypercoagulability produced. In equal dosage ACTH seems to produce a greater degree of hypercoagulability than cortisone. Heparin appeared to be as effective as normally but discmarol appeared to be more effective in producing an anticoagulant effect in patients receiving ACTH or cortisone as compared with patients not receiving these compounds.

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NEWS AND NOTES

Krebiozen, New Cancer Drug, Under Experimentation

Dr. Andrew C. Ivy of the University of Illinois recently announced preliminary results obtained by the use of a new cancer drug, Krebiozen, used for treatment in advanced cases.

Of a total of 29 patients, beneficial results were noted in a fair percentage of the cases. Dr. Ivy cautioned that the tests conducted so far are preliminary and experimental only. The drug is not available and warnings have been issued to prevent cancer sufferers coming to Chicago in the hope of receiving treatment.

Chloromycetin Found Effective Against Whooping Cough

The antibiotic, Chloromycetin, has been found highly effective as a rapid treatment of whooping cough, a disease which causes more deaths among children less than two years old than polio and scarlet fever combined.

Parke, Davis & Co., maker of the drug, reported recently that 62 patients seriously ill in Cochabamba, Bolivia, had shown marked improvement and regained normal temperatures only one to three days after starting Chloromycetin treatments.

The patients were symptom-free in three and a half to six days, and no remaining infection was found one week after treatment. The report stated, "Untoward reactions are negligible."

In another study, five infants eight to 26 weeks old and severely ill with whooping cough showed "immediate improvement in general condition in all the cases, followed by rapid recovery." Four of the children improved within 12 hours and the fifth, in 24 hours. General recovery was complete in a few days.

The company said numerous other studies had shown the effectiveness of Chloromycetin against whooping cough.

The drug already has been found effective in the treatment of over 30 different diseases, according to Parke, Davis & Co.

Chloromycetin is the only antibiotic so far to be synthesized and produced on a practical scale by chemical methods.

Medical and Dental Schools Proposed for Rutgers Univ.

A New Jersey State study commission of doctors, dentists, educators, prominent citizens and legislators recently proposed the establishment of a medical school and a dental school at Rutgers University in New Brunswick, N. J.

The commission estimated the construction and equipment cost at $25,000,000, and estimated the annual operating cost of a medical school at $4,150,000. This latter figure included the retirement of the bonds over a fifteen year period.

New Jersey has neither a medical nor dental school, and the commission reported that New Jersey students were finding it increasingly difficult in gaining admission to many out of state medical and dental schools. Attributed to this fact is the decrease of 3% since 1945 in the number of New Jersey students admitted as first year students. This decline in New Jersey is contrasted to the increase of 17% over the nation as a whole.

New Jersey has about 6,600 physicians, the commission reported. About 1,000 of these are retired, out of practice or employed out of the state. It was estimated that there is one doctor for every 752 persons in New Jersey, whereas the national average is one for every 745.

—Continued on page 72a

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[1] *Dip-Pert-Tet Alhydrox — Purified Diptheria and Tetanus Toxoids and Pertussis Vaccine combined, Aluminum Hydroxide adsorbed.*

*Cutter Trade Mark

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A FIRST NAME IN COMBINED TOXOIDS

[1] References on request

Cutter Laboratories, Berkeley, California.

NEWS AND NOTES

—Continued from page 70a

Peptic Ulcer Relief Seen in New Drug*

A new drug which "brings relief and ultimate freedom" from peptic ulcers—even in stubborn cases not responding to conventional treatment—was introduced by Parke Davis & Co. recently.

Called Kutrol and administered by mouth, the drug causes healing and disappearance of the ulcers, often in a matter of weeks, clinical investigators have found, the company reported.

"Kutrol holds greatest promise of relief and healing for those ulcer patients who do not respond to conventional therapy," the investigators reported.

Company investigators reported that peptic ulcer ranks tenth as cause of death and twelfth as cause of days work lost. Other studies show one of every ten persons becomes afflicted with peptic ulcers. Approximately three-fourths of all peptic ulcer cases occur in males.

"Study after study has failed to reveal any undesirable side effects which can be attributed to Kutrol," Parke Davis investigators added.

Schering Holds World Conference of Managers and Supervisors

A combined conference of all field supervisors and division managers of both the domestic and international divisions of Schering Corporation was held recently in the home offices of the company in Bloomfield, New Jersey. The assembly of its 17 domestic key field executives and the sales and subsidiary company executives from the 42 countries in which Schering operates was the first of its kind, marking another milestone in the company's steady growth in recent years. Overall policies and research objectives were outlined by Mr. Francis C. Brown, president, at general sessions in the week-long conference. Plans which had been formulated for extending the scope of Schering operations in both hemispheres during the coming year were discussed by Dr. John N. McDonnell, vice-president. Several new pharmaceutical products which are the result of Schering research were announced for release in the first half of 1951. The meeting was addressed by members of Schering's research, production and promotion divisions. Conferences of the separate groups were under the direction of the domestic and international division managers.

History of Medicine Group to Meet

The American Association of the History of Medicine will hold its 1951 annual meeting in Baltimore, Maryland, with headquarters at the Institute of the History of Medicine of The Johns Hopkins University. The meeting will begin on Thursday, May 3, at 8:00 P.M. and will run through noon, Saturday, May 5, 1951.

The program will provide for the presentation of papers on medical history on Thursday evening and Friday forenoon. The Garrison Memorial Lecture will be presented on Friday afternoon, May 4th. Arrangements will also be made for visits, during the afternoon session, to places of medical historical interest.

The Annual Dinner, followed by an Oration, will be held on Friday evening at seven o'clock in the Great Hall of the Welch Library. On Saturday morning the Council of the Association will meet to conduct its business affiairs.

The annual meeting of the Association is open to all those interested in medical history and visitors will be welcome at all sessions of the Association's meeting.

Inquiries may be addressed to the Secretary of the Association: Dr. Iago Galdston, 2 East 103 Street, N. Y. 29, N. Y.

* From the New York Herald-Tribune of January 31.

—Continued on page 74a

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NEWS AND NOTES

—Continued from page 72a

Reports On "Wonder Drugs"

A report of "startling" effects obtained with terramycin in the treatment of yaws, a widespread tropical disease, is included in a recent issue of "Antibiotics and Chemotherapy."

One year ago Drs. Elmer H. Loughlin and Aurele A. Joseph launched a program to investigate terramycin therapy at the Experimental Yaws Center of the Inter-American Cooperative Public Health Service at Gressier in Haiti. Yaws, while not a venereal disease, is caused by a spirochete known as Treponema which cripples and disfigures its victims.

Each stage of yaws was represented among the 150 West Indian patients treated and observed. The two doctors noted the response to topically administered terramycin in ulcers that extended deeply enough to involve tendons and bone "was so rapid that we are of the opinion that this antibiotic exerted not only an antimicrobial effect but also that it provided a local tissue growth stimulating factor."

Under a terramycin dosage schedule, the report states, "in over 80 percent of the cases the treponemata has disappeared from the lesions at the end of 24 hours, while at 48 hours . . . none could be found in any case."

Secondary lesions, the report continues, "responded amazingly rapidly to orally administered terramycin. Healing and drying were so marked at 24 and 48 hours that, unless photographs had been taken and referred to, the degree of change could scarcely be appreciated . . . Individuals who could barely stand and then only with

—Continued on page 76a

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RIASOL for PSORIASIS

NEWS AND NOTES

—Continued from page 74a

assistance, could walk unaided on the third day of treatment."

The effects of terramycin in tertiary yaws, said the doctors, "is no less startling." Systemic therapy supplemented with topical therapy "has accomplished the rehabilitation of a number of patients whom previously we might have considered as hopeless cripples."

Dr. Selman A. Waksman, co-discoverer of streptomycin, contributed to a recent issue of the new journal an article on antibiotics as a new field of science in life-saving drugs. Asserting that the antibiotics "have revolutionized the treatment of infectious diseases," Dr. Harry F. Dowling of the University of Illinois College of Medicine summarizes their proven value and outlines urgent problems that have still to be solved from the standpoint of the clinician.

Dr. Edward F. Kendall of the Mayo Clinic reviews the development of cortisone as a therapeutic agent. He indicates "it is highly improbable that any product ever will be found which can be used in place of cortisone and the closely related compound F." Noting that all the hormone has been prepared from the bile of sheep and beef, Dr. Kendall warns that "there is a limit" to the amount of bile that can be collected, "so that other more abundant starting material must be found."

The next most likely sources for starting materials, he continues, are compounds found in plants. "The most satisfactory method for the production of cortisone would be by total synthesis from simple organic compounds, but to build up cortisone from such material is a major problem in organic chemistry." Dr. Kendall predicts that to accomplish this "it will require patient and persistent labor for several years."

—Continued on page 78a

A "Complete" Medical Refresher At Your Fingertips In 1 Pocket-Size Edition

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HOSPITAL STAFF AND OFFICE MANUAL

by T. M. Larkowski,* Professor of Clinical Surgery, Stritch School of Medicine, Loyola University, Chicago, Ill., and A. R. Rosanova, Clinical Instructor, University of Illinois Medical School, Chicago, Ill.

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The text of this manual is a novel departure in that it is short at times to the point of abruptness. This factor, however, is inherent in the design of the manual as the authors have purposely omitted the highly theoretical and, concentrated instead on compacting all the essential and practical information possible into this one handy manual.

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Raymond W. McNealy, M.D. Chief Surgeon, Cook County Hospital; Professor of Surgery, Northwestern University Medical School; Professor of Surgery, Cook County Post-Graduate School of Medicine; Chief and Head of the Dept. of Surgery at Wesley and Passavant Hospitals, Chicago, Ill.

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—Continued from page 76a

Rheumatic Fever Kills More Girls Than Boys, Study Reveals

The death rate for girls suffering from rheumatic fever and heart diseases is slightly higher than the mortality rate for boys, a recent study revealed.

The study, made by Dr. George Wolff of Washington, D. C., also disclosed the fact that death rates in the Middle Atlantic and Western Mountain regions average slightly higher than those in the rest of the country.

For his survey, Dr. Wolf selected the period from 1939 through 1948 and divided the total number of children's deaths from rheumatic fever and heart ailments during that time into three age groups—5 through 9, 10 through 14, 15 through 19. Both white and non-white children are included.

Characterizing the age, race and sex differences in mortality revealed by the study he said:

"There was a distinct rise with age in mortality from rheumatic heart diseases in each succeeding age group from 5 to 19 years, for both races and both sexes. Death rates were consistently higher for non-white children than for white, a fact that suggests that a more unfavorable environment increases the risk of dying from rheumatic heart diseases. Finally, the death rates were somewhat higher among girls than boys. An exception was the much lower rate for white girls 15 through 19 years old, as compared with that for white boys, while non-white girls of this age had a markedly higher death rate than non-white boys."

The survey also showed that mortality

among the nine geographic divisions of the country varied. "For both white and non-white children," the report said, "the death rates for acute rheumatic fever plus heart diseases are below average in the South, while in the Northeast, especially in the middle Atlantic division, they are significantly above average. In the Pacific division the death rates are as low as in the South and significantly below the country's average, while in the Mountain division they are exceptionally high for the white children in all age groups." (This bears out the frequent observation that in warmer climates rheumatic fever tends to be less prevalent and less severe.)

Although rheumatic fever and heart disease have advanced to a leading place among the killers of children, this advancement, Dr. Wolff points out, is not due to an increase in mortality from those diseases but to the decline in other childhood diseases.

Actually there is a distinct decrease in mortality among white children over the past decades. He cited the 70 per cent decrease for the age groups 5 through 9 and 10 through 14 from 1919-21 to 1944 and 1945, and the 60 per cent decrease for the age group 15 through 19 years. The downward trend is continuing at the present. The average yearly death rate during a three year period from 1939 to 1941 was 4,858 deaths. The number of deaths in 1948 was 2,515. These totals also include the under 5 years of age group.

The story, however, is "very different" for non-white children, he said. There is no consistent downward trend among them except in the age group 15 through 19 years. Even this decrease, he noted, is far behind that of the white adolescents in both sexes and amounts to hardly more than 25 per cent from 1919-21 to the report in 1944. Only in the last three years of the present survey was the decrease somewhat larger. According to Dr. Wolff,

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tuberculosis is still the greatest killer of non-white children.

Emergency Doctor Call System Has Rapid Growth

Medical societies in 329 communities have established night and emergency doctor call systems, according to a report by the Board of Trustees of the American Medical Association. A survey made in the summer of 1948 had shown only 60 such plans in operation.

"While these plans vary greatly according to the size of the community, they all have the same purpose—to guarantee that the people of the community can obtain a doctor at any time of the day or night, any day in the year," it was stated by Dr. Louis H. Bauer of Hempstead, N. Y., chairman of the Board of Trustees.

"The systems are so efficient that even in New York County, which operates the largest emergency call system in the country, it requires no more than seven or eight minutes to have a doctor on his way to answer a call."

Dr. Bauer added that the board "urges all county medical societies that have not yet established a formal plan for answering night and emergency calls make that a completed project during the coming year."

Incidence of Trichinosis Drops in New York City

The New York City Department of Health reported a considerable decline in the number of trichinosis cases in N.Y.C. during 1950.

In 1949, 102 cases were recorded. Last year that number was reduced to eighty-two. During 1945 249 cases were recorded.

Assistant Health Commissioner Jerome Trichter said that the "program of law

enforcement, procedure control and education of the public and dealers which began in January of 1948 has brought encouraging results."

However, Mr. Trichter added that the number of trichinosis cases reported is almost certainly only a small part of the actual number that occur.

Medical Seminar In Cardiovascular Diseases

Physicians and surgeons throughout this country and Cuba are being invited to attend the First Annual Medical Seminar of Mount Sinai Hospital, Miami Beach, Florida. The event will be held on May 23rd, 24th and 25th, 1951, at the Sorrento Hotel in Miami Beach.

Sponsored by the medical staff of Mount Sinai Hospital, the seminar will provide another link in the comprehensive educational research program established at the 14 month old institution. The hospital already has been fully approved by the American College of Surgeons and recently was approved for intern training by the American Medical Association.

Outstanding medical and surgical specialists throughout the country in the cardiovascular field have been invited to participate in the seminar. Under discussion will be various forms of heart diseases and peripheral vascular diseases from the medical, surgical, physiological and pathological points of view. Recent work on cholesterol metabolism also will be reviewed.

Guest speakers at the seminar will include:

Dr. David I. Abramson, Chief, Peripheral Circulatory Clinic, Michael Reese Hospital, Chicago, Physiology and Physio-Pathology of Peripheral Vessels; and, Functional Vascular Diseases.

Dr. Claude S. Beck, Professor of Neurosurgery, Western Reserve University School of Medicine, Cleveland, Opera-

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NEWS AND NOTES

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tion for Coronary Artery Disease.

Dr. Samuel Bellet, Associate Professor of Cardiology, Graduate School of Medicine, University of Pennsylvania, Philadelphia. The Effect of Electrolyte Alterations on the Heart with Particular Reference to the Effect of Hyper and Hypotassemia; and, Treatment of Cardiac Arrhythmias with Particular Reference to the Use of Recent Therapeutic Agents.

Dr. John W. Gofman, Associate Professor of Medical Physics, Donner Laboratory, University of California, Berkeley, Biophysical Methodology and Its Application to Medical Research; and, Studies of Arteriosclerosis Utilizing Biophysical Approaches.

Dr. Seymour S. Kety, Professor of Clinical Physiology, Graduate School of Medicine, University of Pennsylvania, Philadelphia, The Circulation and Metabolism of the Human Brain in Health and Disease.

Dr. Charles W. Robertson, Associate Visiting Surgeon, Massachusetts Memorial Hospitals, Boston, Peripheral Vascular Disorders: Methods of Study; and, Peripheral Vascular Disorders: Methods of Treatment.

Dr. Otto Saphir, Director of Pathology, Michael Reese Hospital, Chicago, Pathology of Arteriosclerosis; and, Collagen Alterations in Rheumatic Heart Disease.

In addition to the lectures, a cocktail

party and banquet will be held on May 23rd. Complete recreational facilities, including golfing, swimming, fishing and sightseeing parties, are being provided for the wives of visiting physicians. Similar activities can also be arranged for physicians who desire these recreations.

Further information on the three-day meeting may be obtained by writing to:

Chairman, Seminar Committee
Mount Sinai Hospital
4300 Alton Road
Miami Beach, Florida

Registrations for the seminar will be limited to 200 physicians. Fee is $20 for practicing physicians and $7 for interns and residents.

Wyckoff Lectures Given by Dr. Wolff

Dr Harold Wolff, professor of medicine (Neurology), Cornell Medical School, will give the annual John Wyckoff Lectures for 1951 at New York University College of Medicine.

Dr. Wolff will speak on the subject, "Headache Mechanism" in two lectures, the first to be given on Thursday afternoon, March 15th and the second on Friday afternoon, March 16th. Both lectures will be delivered in the Main Lecture Hall of the College, 477 First Avenue, at 4 P.M.

Following the lecture of March 16th, a reception and tea in honor of Dr. Wolff will be held in the Board Room of the Medical Center. Dean Currier McEwen of the College will be host.

The John Wyckoff Lectureship was established by the Phi Delta Epsilon Fraternity. This year's lectures are the thirteenth to be given under the lectureship.

National Hearing Week

"Hearing is Priceless—Protect It!" is the theme for National Hearing Week scheduled from May 6 through May 12 under sponsorship of the American Hearing Society.

Purpose of the annual, concentrated educational campaign is to call widespread attention to the fact this nation has a hearing problem directly affecting an estimated 15 million persons with some degree of hearing loss, including three million children.

Almost every man, woman and child in the country with normal hearing has at least one relative, friend or acquaintance whose hearing is defective.

World Medicine Group Elects U.S. Director

Dr. Theodore G. Klumpp, president of

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NEWS AND NOTES

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Winthrop-Stearns Inc., was recently elected to the Board of Directors of the U. S. Committee of the World Medical Association at its meeting at the Hotel Commodore, it was announced by Dr. Louis H. Bauer, secretary-treasurer.

The Board of Directors has been increased to 40 members, expected to be its permanent number. Approximately 1500 American doctors belong to the Association, which sends delegates to the general assemblies of the world group.

The World Medical Association, representing 500,000 individual doctors of 40 nations and maintaining close liaison with the United Nations' World Medical Organization, has been in existence since the Fall of 1947. It has met annually in Paris, Geneva, London and New York, adopting such principles as the first International Code of Ethics and the Declaration of Geneva. Medical education is also studied.

Dr. Klumpp is a director of the New York Heart Associatoin and a member of the Mayor's Advisory Committee on Problems of the Aged, and the N. Y. State Joint Legislative Committee on Problems of the Aging. He was formerly president of the American Pharmaceutical Manufacturers' Association, and Chief of the Drug Division of the Food and Drug Administration.

Chest Physicians to Hold Annual Meeting

The seveneenth annual meeting of the American College of Chest Physicians will be held at the Ambassador Hotel, Atlantic City, New Jersey, June 5 through June 10, 1951.

CLASSIFIED ADVERTISEMENTS

Advertisements under the headings listed are published without charge for those physicians whose names appear on the MEDICAL TIMES mailing list of selected general practitioners. To all others the rate is $3.50 per insertion for 30 words or less: additional words 10c each.

WANTED	**FOR SALE**
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Equipment	**FOR RENT**
Books	**MISCELLANEOUS**

CLASSIFIED ADVERTISING FORMS CLOSE 15th of PRECEDING MONTH. If Box Number is desired all inquiries will be forwarded promptly. Classified Dept., MEDICAL TIMES, 680 Northern Boulevard, Great Neck, L. I., N. Y.

WANTED (Physicians, Assistants, etc.)

ESTABLISHED 25 year location in most desirable office building in University City, Mo., for sale. Retiring—small amount of equipment. Box 3A81, Medical Times.

WANTED (Locations)

PHYSICIAN, age 36, general practice 5 years, veteran last war, family, wants association with busy surgeon or preceptorship. Available near future. Box 3C18, Medical Times.

FOREIGN GRADUATE now serving rotating internship in an approved hospital wants residency in small private hospital in or preferably near N.Y.C. Letters of recommendation available. Reply to Horst E. Wulff, M.D., St. Mary's Hospital, Waterbury, Conn.

WANTED (Equipment)

MEDICAL instruments of diagnostic value—not commonly used. Ideas along this line. Box 7B7, Medical Times.

INTERESTED in delivery table. Send description and price to: Matthew W. Rossi, M.D., 784 Park Ave., Cranston, Rhode Island.

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AVAILABLE to relieve doctor who is being pressed into military service. In near vicinity of Dallas, Texas, only. Box 3T2, Medical Times.

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PROSPEROUS LONG ISLAND NORTH SHORE COMMUNITY. Fully equipped physician's office for rent. Treatment room and waiting room of deceased practitioner with large practice. Flouroscope and complete medical and minor surgical equipment. Long term lease if desired. Box 4R30, Medical Times.

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LUCRATIVE general practice in Boston suburb with combined office-home for sale. Leaving to enter Service. Box 1F27, Medical Times.

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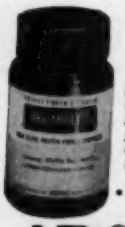

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